DOCUMENT RESUME

ED 172 945 PS 010 719

AUTHOR	James, Michael, Ed.
TITLE	Education for Middle Level Students.
INSTITUTION	Evansville Univ., Ind.
PUB DATE	79
NOTE	72p.
JOURNAL CIT	Opening Education for Children and Youth; v6 n2 Winter 1979
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	*Classroom Environment; Cognitive Objectives; Educational Alternatives; *Educational Change; *Humanistic Education; Junior High Schools; Learning Laboratories; *Middle Schools; *Open Education; Parent Participation; Research; Student Centered Curriculum; Teacher Attitudes
IDENTIFIERS	*Piaget (Jean)

ABSTRACT

This collection of 14 papers explores aspects of open education for middle level schools. The first paper challenges open educators to work for the reform of absurd and obsolete educational practices. The second discusses management of the open environment. The third investigates problems of linking learners and learning activities. Other papers in the collection discuss preconditions for learning, how to open up classrooms, a laboratory approach to learning, an eighth grade unit on exploration, discipline, and parent-teacher-student conferencing. A step by step procedure for opening classroom learning is outlined. A study is reported in which 42 student teachers in special classes rated the classrooms in which they were teaching to determine similarities and differences between regular and special classes on open or traditional characteristics. Issues in Piagetian research which might bear on education are discussed. Last, a study of parochial and public primary teachers' attitudes toward learning centers is reported. (Author/RH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED172945

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

OPENING EDUCATION
for
CHILDREN AND YOUTH

Copyright 1978, 1979
School of Education, University of Evansville
Volume 6, Number 2, Winter 1979

EDUCATION FOR MIDDLE LEVEL STUDENTS

Michael James
Guest Editor

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Ronald Goldenberg
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

PS010719

Opening Education for
Children and Youth
University of Evansville
Evansville, Indiana 47702

OPENING EDUCATION FOR CHILDREN AND YOUTH

Editor

Ronald Goldenberg
School of Education
University of Evansville
Evansville, Indiana 47702

Board of Consulting and Contributing Editors:

Alfred Arth
College of Education
The University of Wyoming
Laramie, Wyoming 82070

Graham Bond
Marshlands Primary School
Hailsham Sussex
United Kingdom

Richard Ishler
School of Education
Emporia State University
Emporia, Kansas 66801

Howard Johnston
College of Education
and Home Economics
The University of Cincinnati
Cincinnati, Ohio 45202

Vincent Rogers
School of Education
The University of
Connecticut
Storrs, Connecticut 06268

Darrell Roubinek
School of Education
Southwest, Missouri
State University
Springfield, Missouri
65802

Lillian Stephens
State University of New York
at Stony Brook
Stony Brook, New York 11794

Dick Thomas
Bicentennial School
Clendale, Arizona 85311

Opening Education for Children and Youth is a non-profit publication intended for reader services. Original manuscripts are welcomed. They must be typewritten, double-spaced, and conform to usual manuscript form (See University of Chicago, or American Psychological Association formats). All correspondence should be addressed to the Editor, Ronald Goldenberg, Dean, School of Education, University of Evansville, P.O. Box 329, Evansville, Indiana 47702.

- -

OPENING EDUCATION FOR CHILDREN AND YOUTH

Please add my name to your mailing list:

Name_____ Home Address_____

School Address_____Position_____

Send Opening Education for Children and Youth to____Home____School

Return to: Ronald E. Goldenberg, Dean
School of Education
University of Evansville
P. O. BOX 329
Evansville, Indiana 47702

TABLE OF CONTENTS

From the Guest Editor ..... Page i
Michael A. James, Wichita State University

A Look at the Middle School Movement ..... Page 1
Cynthia S. Rutherford, Wichita Public Schools

Establishing Boundaries - A Necessary Ingredient in Open Education ..... Page 7
John A. Bucci and Sharon Rallis, Rhode Island College

Openings ..... Page 12
Michael A. James, Wichita State University

"Real" Involvement in the Educational Process ..... Page 15
Susan Wolfe, Goddard (Kansas) Public Schools

Opening Up the Classroom ..... Page 17
Nancy J. Silver, Tucson (Arizona) Public Schools

One Approach to Learning ..... Page 21
Patsy C. Burdine, Wichita Public Schools

Structure for Openness: An Eighth Grade Unit on Exploration ..... Page 24
Thomas O. Erb, Kansas University

A Look at Discipline ..... Page 27
Lorraine Hardesty, Wichita Public Schools

The Role of Three-Way Conferencing in an Overall Affective Education Program ..... Page 33
Dawn H. Grohs, Wichita Public Schools

Cliff, a poem ..... Page 38
John Rhoads, Wichita State University

Opening Classrooms: A Step by Step Procedure.....Page 39
Richard Butt, McGill University

Student Teachers' Perceptions of Openness in Special Classes.....Page 47
Marlys M. Mitchell and John C. Crantley, University of North Carolina at Chapel Hill

Implications of Piagetian Research for Teachers of Teachers and Teachers of Children.....Page 56
Thomas J. O'Brien, Southern Illinois University-Edwardsville

Primary Teachers' Attitudes Toward Learning Centers.....Page 64
Dr. Randall A. Pelow, Shippensburg State University

INTRODUCTION

This issue of The Forum presents an examination of meanings of open education for middle level education. The editor sent invitations to friends and colleagues with extensive experience as teachers of young people who now are classroom teachers (Cynthia, Susan and Nancy), curriculum coordinators/specialists (Patsy and Dawn), a building administrator (Lorraine), a graduate student (John Rhoads), and college personnel (John Bucci, Sharon, Tom , and Michael). Over the years, the editor has come to know these people for their openness and concern for the learner. We all share an intense interest in the middle level education movement.

As Tim Timmermann suggests in his book, Growing Up Alive, some of the articles are concerned with the structure for openness, some articles deal with involvement, the poem speaks to success or the lack of it, and one article suggests strategies for feedback. All four of these components for planning encourage a humane treatment of and for the learner. In our case we are emphasizing the learner aged 10-14.

I am indebted to the writers who have generously shared their ideas for this specific publication. Hopefully, you will catch the love and concern each offers. Moveover, if you can incorporate our philosophies and ideas into your middle level education program, then our efforts will have been worthwhile.

Michael A. James
Wichita State University

A LOOK AT THE MIDDLE SCHOOL MOVEMENT

Cynthia S. Rutherford

It cannot be news to anyone connected with public school education that middle schools are on the way. To the children who now go to school in some 4000 middle schools, they are already here. Articles in professional journals, formation of associations, even the cataloguing system in the library proclaims that a great deal is being written and said about middle schools. There are strenuous efforts to say what a middle school is and what it decidedly is not. Curricula are being devised, certification changes are being adopted or planned, in-service programs are discussed, in short, it is possible to witness a massive shifting of gears as a venerable institution of the junior high school is wrenched loose.

From the point of view of the established junior high school teacher, the advent of the middle school probably generates the same enthusiasm with which Macbeth greeted the advance of Birnham Wood on Dunsinane Hill, aware that, somehow, the end of an era was approaching. Unlike that unhappy king, however, the reluctant junior high school teacher faces not an army, but an idea, and who more than he should know that there are few armies as formidable as an idea. Nevertheless, whatever form middle schools may take, they are the applications of theories. In many cases they are applications of theories concerning the education of young adolescents; in other cases they may be the applications of no less relevant theories held by school superintendents about space allocations and per pupil costs.

Middle schools constitute a major shift in educational practice that will affect the lives of millions of people. A movement of the size needs, if not all the friends it can get, surely all the adequate theories. To what has already been said and written, particularly to the sometimes piously self-confident prefaces to books on middle schools, it is proposed to add here some thoughts about the early adolescent child, his education and the social forces which to a large extent will govern the reality of his school experience.

The idea of a middle school as an organizational device, i.e., a school which fits somewhere between the elementary grades and high school, is not new. They are common in other countries and even some of our junior high schools have been called midele schools.

The junior high school, more or less as we know it today, came about as the result of a massive educational reorganization shortly after the beginning of this century. Advances in industrial technology had replaced a great deal of human labor in the mills and factories of the nineteenth century with machines which, combined with child labor legislation, now released into the community large numbers of young people who previously would have ended their schooling early and gone to work. In the decade from 1910 to 1920, the high school population rose from 915,000 to 2,200,000. (Moss, 1969) Educators who longed no less then than now, to see this accumulation of young bodies in school for as long as possible, figured that they could hold for one more year the large population who usually left after the eighth grade by creating schools housing the

seventh, eighth and ninth grades. Psychologists who are interested in education also come to recognize this group as differing both from the high school and the elementary school in important aspects at the onset of adolescence. School administrators who had to build buildings to house the increasing numbers of children saw in the separate junior high schools an economical solution to their problems. The junior high school appeared as an idea whose time had definitely come. This combination of the powerful social forces of urbanization and immigration supplemented a new interest in the psychology of adolescence and a recognition on the part of many educators that the schools up to that time had, in many respects, failed in their efforts with this group of students. (Van Til, 1970)

It is possible, since times and social forces change, that society may be at another watershed point in the history of the educational establishment, at least with respect to the young adolescent, and possibly to all of education. It will be interesting to observe the direction in which we move.

The social forces which resulted in the junior high school movement are not the same as those we are now experiencing. Young people typically stay in school much longer than they did sixty years ago, but while they are there, their expectations seem quite different from those of their grandparents. Paradoxically, while children at the beginning of the junior high school era often left school at an earlier age, they did so at a level of physical maturation markedly lower than the children of today. Perhaps most important of all are the forces operating in society at large which have had such profound effects on the schools. The continuing struggles over the desegregation of schools are living examples of Durkheim's theme that society is the source of educational life. (Popper, 1967)

The groundwork for any discussion of the education of the young adolescent is the physical child himself. Unlike the period preceding the junior high era, we have a good deal of data about these children, most of it fairly recent. There is no doubt that it may be more interesting to study infants who cannot resist and high school students who will usually cooperate with intelligible answers. It is the young adolescent who will squirm and may greet the questioner with ill-concealed hostility who has been long overdue for study. Among other salient points, it now appears that our children are entering puberty at least two years earlier, on the average, than at any time for which we have reliable data. Research seems to suggest a link between earlier maturity and nutrition but this has not been completely established. (Tanner, 1971) Nevertheless, this fact alone has led to a questioning of the junior high organizational structure that includes grades seven, eight and nine. Typically, if the current data are correct, at least two-thirds of the junior high school's female population will have entered puberty by the eighth grade. Clearly, the maturation differences at this level are greater than were originally intended. It follows from this that, at least in the realm of physical maturation, the average ninth grader has more in common with high school young people of fifteen to eighteen than with the younger children. Further, if we consider what is so readily observable in any group of children, namely, that at any given age the growth tempo of different children can vary as much as to make them seem four years apart in age, we need to consider groupings based on some other determinant than that of chronological age, a notoriously inaccurate measuring device.

The other face of the maturation dilemma is that of emotional growth and, here again, our young people are faced with a societal double bind. Rather than easing the transition from elementary to secondary education, the system in the typical junior high school is to enforce childlike conforming standards of behavior, while at the same time informally rewarding physical precocity. In Margaret Mead's words we ask that, "in the junior high school - that they be adult beyond their years." (Mead, 1960) It is a fair question to ask of our junior high schools that they consider whose best interests are served by a highly competitive system of inter-scholastic sports with the attendant and expensively uniformed and equally competitive cheerleaders, pom-pom girls, drill team and other ladies-in-waiting such as the pep club. Although there is little solid information on the relation between emotional and physiological developments, there is enough to suggest quite strongly that emotional attitudes are related to physiological events. (Tanner, 1971) To further underscore our ambivalence as a society toward these factors, research into the cognitive link to maturation has shown that the longer early adolescence is prolonged rather than pushed blindly forward following the biological trend, the more capacity for complex cognitive functions is enhanced. (Blox, 1971) An examination of the formal and informal system of rewards in early adolescent education is long overdue.

There is simply no doubt that school for young adolescents serves as a crucial socialization device. "Acceptance or symbolically validated membership in a group's interaction patterns can refer to the family, to the peer crowd or clique, official school groups or to the wider world of social class, socio-economic status and ethnic subculture." (Gordon, 1971) The school has the opportunity and, more important, the institutionalized framework for extensive and deep socialization. For the maturing young person whose concept of himself is developed by seeing his reflection mirrored in the responses of those around him, this period in his education can be seen as the cornerstone of his adult self. If the attitudes he perceives are those of conformity to standards differing substantially from those of his own reference group - witness the minority child in a middle class school - then he may very well become another unwelcome statistic in a system which tends to confuse the failure of the client with the failure of the institution whose stated purpose it is to serve him. There is a saying about the doctor who can bury his mistakes, but the architect can only advise his patron to plant vines. In education we go one step further and insist that the mistake was not cours at all, but the client's. Clearly, the formal goal of "equality of education" is too often translated into the function of coercive conformity.

If it can be said that curriculum is not only what is taught, but how it is taught, then it is necessary to look beyond lists of approved subject matter contained in middle school curriculum guides to the methods by which they will be taught. Even more important, however, is to question the process by which the curriculum guides were devised in the first place. It is an observable fact of pedagogy that, while it is possible to make occasional substitutions in a curriculum, or certainly to add to it, to subtract one area of discourse from an established curriculum is virtually impossible. It is a safe bet that most of us who teach in the public schools are teaching what we were taught. Methodology has altered somewhat, though in certain cases that spring readily to mind, little if any changes have been made.

but on the whole we are teaching a curriculum that has only grown and has not spilled a drop in the passage of two generations. In the meantime we have fought three wars, proclaimed that "separate" was inherently not "equal" and tramped around on the moon. Man is the only animal that has problems, and knows it, and yet we persist in carving up our experience and dishing it out to our young people pre-packaged into "disciplines" as though it really grew that way. Also, this system makes it very easy to ignore the problem of someone else if it can be neatly subsumed in another discipline - or given to the social studies teacher to handle. Archibald MacLeish has suggested that faculties turn from "preparing students for jobs and money" to "developing whole persons." Is it possible for us to postpone our preoccupation with the needs of industry and commerce until we have explored with our students man and his problems? (Borsodi, 1970) Of course, the term "relevance" comes all too easily to mind despite its debased currency. But relevance to what? Of the three main sorts of problems: intellectual, emotional and practical, the emotional is by far the most potent. It is here that our values and attitudes come most specifically into play and it is in this arena that our tragedies, personal and societal, are played out. Curriculum, if it is to be useful, must be concerned not only with rational examination of phenomena, but rational examination of who and what we love and hate and, most important, what we do about our love and hate. Otherwise, our demands on students become such that they "jump through teachers' hoops like so many trained puppies, dutifully performing the required tricks as efficiently and thoughtlessly as possible." (Bob Burton Brown, quoted in Chambers, 1970) Or others of our students may take the hoops and fashion them into quite different implements in preparation for jumping through an entirely different set of hoops.

Before positing the types of curricula that might be appropriate for the early adolescent, it is necessary to look again at his typical physical and mental development at this stage. It seems apparent that cognitive changes occur along with or as a result of the physical changes accompanying puberty. At this time, somewhere about the age of twelve, but often earlier or later, the child acquires a new cognitive competence: he begins to examine his existing beliefs, a practice not often seen prior to this time. This is not to suggest that he begins a constant and critical philosophical examination of his world, but he is nudged to begin a re-examination of his knowledge. Gradually he becomes able to tackle varying intellectual tasks. He discovers that problems can be self-contained entities solved by special rules; he becomes more able to induce rules from events with multiple attributes and he is capable of inferring conjunctive and disjunctive concepts from appropriate data. He now can think of the multiple dimensions of a problem and realize that an experience is often dependent on events not in the immediate vicinity. (Kagan, 1971)

If empirical evidence can be counted as useful, then the implications for the curriculum writers are clear. The approaches that are called, variously, interdisciplinary, core, common learnings, unified studies, etc., can find a fertile field in the mind of the early adolescent. He is beginning to develop the conceptual tools for problem solving, for thinking about his world as a whole and it behooves us to engage him on these grounds. This approach assumes more than a superficial "correlation" of subject matter; at the point at which we confront the student with the

world that he has only guessed at, it must be as participants in a supra-disciplinary effort in which we work with students as they develop adequate theories of heterogeneous world.

All this, of course, is antithetical to the secondary teacher who has been conditioned to regard fealty to subject matter as the primary status-conferring feature indicating placement in the social order higher than the elementary teacher and as close as possible to the high school teacher. Departmentalization and specialization modeled as closely as possible on that of the college - the superordinate extrodinaire in the educational hierarchy - is the goal of every self-respecting junior high teacher. Harsh as this judgement may sound it is, nevertheless, demonstratably true that junior high school teachers are often best described as disappointed high school teachers who wait, often in vain, for the chance to "move up". Teacher training institutions typically perpetuate this probability for role conflict by gearing methods courses to high school subject matter, leaving teachers prepared for positions which often do not materialize. It is difficult to blame an inadequate curriculum on teachers who themselves are products of an inadequate education. Further, the majority of teachers come from lower middle and upper lower class backgrounds and seldom wish to disturb the community power structure which allows them to elevate themselves only so long as they cooperatively transmit the social myths and values of those who control the schools. To do this teachers must concentrate on teaching students what to think, not how to think, an exercise which results in an innocuous curriculum, but which is safe and secure for the teacher. (Chambers, 1970)

With this not overly-optimistic look at the educational milieu of the early adolescent, is it possible to look forward with confidence to the middle school era? More basic than that is the question of the nature of social change in education. If the middle school is to be considered a reform movement in early adolescent education, are its goals sufficient for the task and will its function come close to realizing its goals? Further, are we busily applying a bandaid over a massive wound whose dimensions are primarily social before they are educational? We have assumed for so long that the schools, the secular religion, could preserve our institutions and provide opportunity for social and economic mobility. We will have to concede that, while this may have been true historically for some groups of our population, there are vast numbers of our people for whom neither of the expectations have been fulfilled. Instead, the schools have reinforced current political, class and status distinctions and rewarded only those who managed to adopt the institutional values. Failure to conform usually meant denial of rewards and assignment to the lower end of tracking systems. In recognition of these shortcomings there has been no lack of attempts at reform. The problem arises when the reforms threaten, as they frequently do, the manner in which the educational bureaucracy is organized, the values it cherishes, and the power it wields. There are some who even suggest that there are no conditions under which institutionalized education could engage in a reform sufficient to restore its original goals and still retain its current power and decision-making authority. (Rist, 1974) Reform efforts also frequently flounder on the assumption that the problem is not with the schools, but with outside social forces for which the school is a helpless scapegoat. The reason that we have trouble in the schools,

according to this quite vocal group, is because of white flight to the suburbs, deterioration of the cities and the lack of two-parent families among the poor, etc. Since, the argument goes on, the schools are powerless to effect substantive changes, they must get along as best they can. Still not questioning the basic premises of schooling, the next step is to attempt some new programs. These will be of the sort which could be considered "safe reforms" which in no way alter the basic configuration of the educational establishment. One example would be the assault on the behavior patterns of the so-called "culturally deprived", a term used to define those whose culture was demonstratably rich, but whose children did not come up to the pedagogical standards of the middle class. In this way the illusion of a reform is created while, in reality, nothing has moved. Rist says quite succinctly, "Fundamental change in educational practices implies the necessity of fundamental social reform." (Ibid., 1974) If we accept this thesis then sporadic tinkering with the schools should come to an end and alternative means for the education of children must be developed.

At this point, it would be a fair question to ask whether the middle school is, in fact, a fundamental change in the educational system or a cosmetic rearrangement of the status quo. The devoted middle school proponents offer a tempting array of succulent premises almost irresistable to those who see the junior high school as a dwarfish copy of an original which has little enough to recommend it. The middle school promise of learning environments for students based on sound theories of adolescent behavior instead of insistence that the student conform to patterns which are indefensible in the light of present data is heady stuff indeed to those who have labored long enough in the uncomfortable knowledge that we were perpetuating absurdities. It is too much to ask that middle schools right all of society's wrongs; it is not too much to ask that they make a conscientious effort to use their knowledge for the benefit of all society's children and to resist the almost irresistable forces which will, in one way or another, exert a pull to dead center. This is, admittedly, a tall order, but there is evidence to suggest that the time for educational reform is not here, it is nearly gone. The patience of those whom the system has failed is nearly exhausted and the issue is not only the survival of education in some form, but the continuity of a viable social order. In Dewey's words, "We may desire abolition of war, industrial justice, greater equality of opportunity for all. But no amount of preaching good will or the golden rule or the cultivation of sentiments of love and equity will accomplish the results. There must be change in objective arrangements and institutions. We must work on the environment, not merely on the hearts of men." (quoted in Shipka, 1970)

References

Blos, Peter The child analyst looks at the young adolescent. Daedalus, 1971, 100, 961,977.

Borsodi, Ralph Curriculum: The real meaning of relevance. Journal of Human Relations, 1970, 18, 1121-1128.

Chambers, Gurney Timid teachers and irrelevant education. Journal of Human Relations, 1970, 18, 1129-1136.

Gordon, Chad Social characteristics of early adolescence. Deadalus, 1971, 100, 931-956.

Kagan, Jerome A conception of early adolescence. Deadalus, 1971, 100, 997-1012.

Mead, Margaret Are we squeezing out adolescents? The Education Digest, 1960, 26, 3-7.

Moss, Theodore C. Middle School. Boston: Houghton Mifflin Co., 1969.

Popper, Samuel H. The American middle school: An organizational analysis. Waltham, Mass.: Blaisdell Publishing Co., 1967.

Rist, Ray C. Why public schools don't change: An assessment of current attempts at educational reform in the United States. Australian and New Zealand Journal of Sociology, 1974, 10, 26-30.

Shipka, Thomas A. Dewey and the functionalists. Journal of Human Relations, 1970, 18, 1177-1187.

Tanner, J.M. Sequence, tempo and individual variation in the growth and development of boys and girls aged twelve to sixteen. Deadalus, 1971, 100, 907-930.

Van Til, William Junior High school or middle school? In Hass, Glenn, Bondi, Joseph and Wiles, Jon (Eds.) Curriculum planning: A new approach. Boston: Allyn and Bacon, Inc., 1974.

ESTABLISHING BOUNDARIES - A NECESSARY INGREDIENT IN OPEN EDUCATION

John A. Bucci and Sharon Railis

A key element for the success of a humanistic open education program is the balance between the freedom allowed a child to explore and develop, and the boundaries which have been established within which that freedom takes place. Criticism of unsuccessful open education programs has been based on an emphasis of one extreme or the other. Either classrooms had few boundaries and children were allowed to be disruptive and violated school and community standards, or rules developed in response to the fear of that happening were so stringent that the result was not truly an open situation.

As a child grows from infancy to adulthood, a critical need exists for a balance between the freedom and the limitations which are appropriate for his developmental stage. At all stages, the child needs adults to verify his growing concept of reality, his attempts to define his world. To aid the child's process of definition, at whatever level he may be, an adult

must allow him the freedom to explore, but must prevent him from acting in a manner which would harm others, violate community standards, or endanger himself.

This definition of boundaries must be especially clear for children from the ages of 10 to 14. During this period of growth, the emerging adolescent is struggling to define the boundaries for himself. Since he is developing his own identity, it is essential that he knows just how far he can push the limits set by others, and what are the extremes of behavior that other people will tolerate. Thus, the middle school educator is faced with the difficult task of both defining and enforcing what may be the most delicate balance of freedom and control necessary at any of the developmental stages. This paper will address the need for this balance throughout all stages and will focus on the critical period of early adolescence. Finally, possibilities will be explored for creating an effective open atmosphere for middle school growth.

From the moment of birth, an infant begins to test his environment. As he grows and moves about in his world, a mother or other adult imposes limitations on his activities. He may not touch the ash tray; he may not climb onto the record player. He is encouraged to crawl and then walk when ready, but the adult establishes boundaries. Within those limits, the young child is encouraged to be creative and to explore. Picture the playpen or crib: an enclosed area loaded with colorful toys of many shapes to enrich the infant's world. The idea is that the child is safe to play and explore in a restricted environment. The limits are designed primarily for safety reasons.

Erik Erikson identifies the trust/mistrust polarity at this stage. The child must know that no matter where his explorations may take him, mother is there to prevent him from hurting himself. If the adult does not establish safe boundaries, the child will not develop a sense of basic trust. In Piagetian terms, the child is at a prelogical stage; he relies on his intuition in which his sense of safety is represented by mother. In Freudian terms, he and his mother are one. The child does not recognize an identity separate from his mother.

As the child leaves infancy, he enters society and he accomplishes his first separation from his parents, according to Freud. Now that he knows he is not his parents, he wants to be like them. Thus, he begins to act and to do things as he sees his parents do them. Now he tests not only what he is allowed to do, but what he is able to do. As he strives for competence, the school teacher joins his parents in defining which behaviors that he can do are acceptable.

He satisfies his curiosity through industry. He finds his opportunities for freedom in the chance to master various skills. The restrictions he encounters are largely those imposed by the subject. Piaget places the latency child at the concrete operations stage; reality is simply what is concretely possible for him. During latency, the youngster can absorb himself in solving infinite numbers of math problems, in playing endless word games, in creating pictures in art or projects in crafts. Erikson identifies the polarities during these stages of development as initiative/guilt

and industry/inferiority. At this time, Erikson cautions against the danger of a child's experiencing continual failure. The adult, then, can help minimize this danger for the latency youngster by structuring his learning environment so that he experiences success from his own intitiative.

If the child is to grow into a responsible, functioning adult, he must move away from the domination of restrictions imposed from the outside and increasingly toward self-imposed restrictions. Piaget describes the adult as one who can recognize possibilities and who is able to discover means of making these possibilities real. Erikson describes him as someone who knows his own strengths and weaknesses and who has found a way to use these strengths and weaknesses to work in the world. He will have learned what he can and cannot accomplish, and he will have learned that certain actions will hurt either himself, his society, or his neighbors. The boundaries surrounding a complete adult are predominately self-imposed. Naturally, laws do exist, but the adult obeys these laws largely because he has chosen to do so. Think of the laws which a typical adult may disobey at times; speed limits, taxes, certain drugs. He does so because he does not see his disobedience in each case as harmful to himself, others, or to society. Moving from childhood, where boundaries are defined for the child by other individuals, to adulthood, where the individual as a part of society should define his own limits, is a continuous and often painful process which may not even be completed. Therefore, those years between latency and adulthood, is a critical time. The first years of this period, transescence, are particularly important because the process of self definition is beginning here, and the emerging adolescent decidedly needs adult guidance.

Middle school, thus, marks the onset of self-definition. Now the youngster wants to define for himself what his limits are. In latency he tested concrete problems; the early adolescent wants to test ideas as well. Because this world of ideas he is entering is new and so large, he needs to feel sufficiently secure to take risks and to explore. Thus, he still needs adults to verify his perceptions, to help him touch reality, and to prevent him from hurting himself or those around him. In fact, the youth wants adults near him for these reasons. Illustrative of this need is the young student who told a teacher why he liked her, "because you don't care if I like you; you just care about me."

However, the adult he needs is generally no longer his parents, and he is now severely critical of any outsider who limits him. Ahead of him he sees older adolescents and adults, who, in his eyes, do not seem limited in any way. He knows he is not yet ready to be one of them but he wants assurance that he will someday reach their status. Perhaps middle school might be identified as the last time when the youngster can find an atmosphere where he is encouraged to take risks but where it is still legitimate in his eyes and the eyes of society for an adult to set the coundaries. He is rejecting parental pressure and moving toward peer influence, but he will still accept limits imposed by teachers or certain other adults. The middle school teacher, then, must be careful not to attempt to control the students, but rather to define the lines beyond which he may not pass.

The numerous changes, physical and mental, the young adolescent is experiencing are sufficient reasons for his demonstrating conflicting

needs. In describing the early adolescent's rejections of his parents, Freud explains why other adults become essential as role models. Freud calls entry to adolescence a recapitulation of the infant Oedipal struggles resulting in early rejection and separation from parents. The young person needs to give up the passive/dependent role of his previous years, and begin to develop self-control. However, this is not easy. Freud notes the difficulty that the early adolescent has in dealing with drives he cannot yet control. His personality is thrown into imbalance; he needs adults to help him identify and control those drives.

Freud also discusses the issue of responsibility in early adolescence. The young person fluctuates between desiring to assume responsibility for his actions and blaming others for his mistakes or failures. How many teachers have encountered the youngster who assures us that he can do the work on his own rather than during study hall, and then later when he receives a low grade, accuses the teacher of not giving him sufficient time to study? The young person must learn to take responsibility for his own actions within the parameters of clearly defined boundaries.

Since the youth is separating from his parents and attempting to define his identity apart from them, he needs strong, stable adults who know their own boundaries to serve as alternative models for what he might become. One of Friedeinberg's criticisms in his Coming of Age in America was that students seldom found affirmation or support in the culture for the kind of persons they might wish to become. The latency child relied almost exclusively on his parents to be his role models. Now, since the early adolescent is entering Piaget's formal operational stage he is able to see many possibilities beyond his parents. Therefore, if we are to expect young people to grow into adults who are able to assess their own strengths and weaknesses, schools certainly have an obligation to provide alternative role models for what the young person might wish to become. Indeed, the school is the natural place to provide role models for the student.

The teacher can be most helpful to the young adolescent in this light by maintaining his own clearly defined boundaries and by exhibiting stability and consistency. By demonstrating that he is a person with his own boundaries, self-defined and self-maintained, the adult is helping the young person to see and accept the reality of defining himself.

Another aspect of the entry into the formal operational stage is the young person's unrealistic belief in his own powers. He has just discovered his ability to play with ideas and words and has no concept of the gap between what he is thinking and saying and what is reality. He may believe that because he thinks it, it is true. Who is more a master at verbal abuse than a middle school student? Here, the adult must bring the youngster back in touch with reality by clearly defining what is harmful to others, or violates community standards. Within those limits, the students may play with their newly felt power.

Again, it is important to clarify that these restrictions are not random rules, but rather boundaries or limits defining the acceptable extremes of behavior. Within these boundaries, behavior may vary immensely. Accepting this variance of behavior is essential because another characteristic of the middle school student is that it is nearly impossible to predict at what

point in the transition from child to adult he will be at any given moment. Indeed, a characteristic of the middle school itself is that it is filled with different students all at different stages of physical and mental growth. Picture the average seventh grade class: a 5'4" girl wearing skirt and sweater and makeup reading a currently popular novel; a much shorter girl wearing a tee shirt and jeans chewing gum and wondering how she'll perform in the soccer game of the school; a chubby boy who likes to sit at his desk constructing buildings with his books and who wants to know "the right answer" to all questions; the tall boy with long hair and cigarettes bulging in his pocket who wants to argue the relevance of rules in the school. Because of the variation in stages of the midele school students, the teacher must create an atmosphere in which each student feels accepted for what he is, while minimizing the harmful effects of the inevitable conflicts that will arise from such diversity.

The middle school teacher in an open setting is faced with the difficult problem of creating an atmosphere in which children are allowed maximum freedom within realistic boundaries. The boundaries in effect form a rigid enclosure within which children may be themselves. These boundaries should be created to meet three major concerns: students should not be allowed to act in a way which would endanger themselves; students should not be allowed to hurt others, emotionally or physically; students should not be allowed to violate community standards which teachers are expected to uphold. Since behavior in this setting is more individually motivated there will be more individual challenges to the boundaries. Within these boundaries a child should be able to act freely. Nevertheless, the teacher must continue to encourage this freedom of activity while remaining vigilant for attempts to cross the boundaries. Furthermore, the child must be made aware of the consequences of stepping beyond any of the clearly stated limits. If he does move out of the acceptable limits, he must receive the prescribed punishment.

While these boundaries will do much to ensure the balance between freedom and order in the classroom one additional limitation is necessary. This is the limitation which the teacher translates into rules representing his individual tolerance for a variety of different behaviors. We might call this the idiosyncratic boundary. It consists of the personal limitations and tolerances, which must be respected in order for that teacher to function effectively.

Teachers have their own personal limits. There are specific behaviors which they cannot tolerate in students. One teacher may despise mild swearing, while another may see it as a harmless means of expression. One teacher may consider his desk as his private area, to be entered by students only with permission, while another may welcome students' searching his desk for materials. These personal boundaries may vary greatly amongst teachers. Because of this variance, and because they are personal, these boundaries must be clearly stated and consistently enforced. Young persons will accept these differences if they are made aware of them and if the boundaries are reasonable.

The question of whether the limits are reasonable is not so much one of quality as of quantity. A teacher who may have one rule, such as no gum chewing, which all students see as absurd, may still see it obeyed without much protest because he does not overload students with other needless rules. In

other words, the student is willing to follow what they feel is a silly rule because they see that this is one thing that really bothers the teacher. They can accept this one boundary. Another teacher may be surprised that he has trouble enforcing his list of rules concerning important issues: noise, lateness, appearance, language. Here, the problem is that by imposing too many rules, the teacher is not defining boundaries of acceptable behavior. Instead, he is defining the behavior itself. This teacher is not establishing an atmosphere of open education. A teacher who requires so many rules in order to function in a classroom should not bother to call himself an open educator.

Whatever the form a particular case of open education may take, then, we feel its success depends upon the balance it is able to maintain between freedom and control. Whatever stage of development a child may have reached, he needs the freedom to explore in order to move on to another stage. He also needs the safety of knowing that his explorations will not hurt others, or himself. For the middle school youngster, this margin of safety takes on a new twist: he wants to know that he will not be allowed to hurt others or himself while he explores new definitions of self. The need for balance between freedom and control and the developmental needs of emerging adolescents mandate that clearly defined boundaries be established in middle school open classrooms.

OPENINGS

Michael A. James

He sat toward the back of the room looking contemptuously at the visitors. Restless, turned off, and tuned out he once more tried to head his paper properly. "RONNIE B (for the best) HUDGINS" he finally scribbled above the first blue line on his writing paper. By then the directions that Mrs. Adams, the Language Arts team teacher, had given about writing a reaction paper on the reality of "Saturday Night Fever" apparently had escaped Ronnie. He toyed with the button on his faded levi jacket and then started to draw a very phallic looking automobile. The team planned and taught unit about "Heroes - are there any?" didn't match Ronnie's interests. Writing about something he hadn't seen yet, but was going to, seemed dumb. But Ronnie was not alone. There were others in room 4 at Davidson Middle School that for their own reasons were not working on the assignment.

I, as one of the visitors that day, had been quite excited about the prospect of observing an "exemplary interdisciplinary team" - as the school's principal described the situation - begin a new unit of work. Somehow, though, I focused more on the Ronnies of the class and wondered why, with all the preparation, talent, and involvement that the teachers displayed, there were some turned-off pupils.

Virgil Howes (1974, p.65) discusses a decision-making matrix that includes both levels and phases of decision-making involving teachers and students. In the observed teaming situation, the teachers were making Level I decisions about the goals and plans for completing the assignment. In this context, it is no wonder that Ronnie B. Hudgins was turned off. The teachers gave him the perfect opportunity to "cop-out" as Howes suggests! With no ownership in the task and no alternatives to choose from, Ronnie is forced into a passive either-or situation that is not productive. He either placidly follows the directions or not. The win-lose gamesmanship has been revived and again the student becomes the loser.

In defense of the teachers, the obvious planning and orchestration of the unit and activity can be applauded. They are implementing instruction that is interdisciplinary in nature and could be considered of interest to many learners of this age. The stimulus - the movie - speaks to anyone going through or having gone through a faze or fadish time. "Heroes" as a focusing theme captures the interest and fantasy of many young people as they begin to explore their own identity and use role models as a wall-mark for measuring-up.

What is missing between the learners and the learnings? Openings are missing - those opportunities for both the teachers to turn over the learning role to the learner, and the learner to learn of responsibility, decision-making skills and consequences. Structure is necessary in any learning environment. Within even the most "open" educational setting there is structure when structure is defined as "the planning, setting-up, and adhering to specific guidelines" (Timmermann, 1975, p.6). Both teachers and learners need to generate and adhere to functioning guidelines that maximize opportunities for learning. When the teachers make all of the decisions about learning, they explore many openings, but only from their perspective. They also close out a view of these openings from the learner. When both learner and teacher share in the decision-making process no one loses sight of the goals and plans since both parties provide perceptions of relevant openings based on needs, interests, and levels of expertise. The meshing is mutually developed.

This wasn't all of the problem surrounding the circumstances in Room 4 of Davidson Middle School. While the teachers circulated among the task-oriented students providing formative feedback and answering questions, they also stopped to talk with the non-working students and tried to revitalize the presentation and encourage involvement. Again the teachers were making the decisions but this time they were suggesting alternatives to a few of the tuned-out. Ronnie still didn't accept the invitation. He said that he hadn't seen the movie, didn't have any movie heroes, and would rather draw than write.

During a visitor orientation session with the principal, I asked whether we could move about the room that day if we did not create a distraction. Further, I wanted to talk with the learners about what they were doing. Both requests were granted. Therefore, I zeroed in on Ronnie B. Hudgins.

Talking with Ronnie was at best tentative. No child this age readily engages in deep conversation with a stranger, much less someone who is

observing the learning (or non-learning) processes. I did learn, though, that Ronnie looked negatively on the structure as "gang teaching" rather than as a facilitative team teaching situation. He said that the teachers, now that there was more than one, seemed to gang-up on him. More people were making demands and decisions about what he was to learn, how and when this was to take place, and, most of all, what he was supposed to get out of the activities. This seemed to bother Ronnie. He felt that he had some rights and was competent enough to be a part of these deliberations concerning significant aspects of his learning. I had a hard time disagreeing with his logic. As I probed more deeply into his feelings and frustrations, I learned that he felt closed-out from the beginning. His definition of "hero" was romantic and fanciful, not at all related to a disco king in Brooklyn. Therefore, he had no maneuverability in completing the assignment. From his point of view, there were no "openings". The toughest question he raised during our conversation was, "Why didn't she let me ask questions?" I did not try to outguess the teachers' motives, but asked Ronnie what questions he would have asked if he had had the chance. He responded matter-of-factly, "I'd want to know if I could use some other 'hero' to write about since I'm really into race cars and I want to be a NASCAR driver someday. I'd want to know if I had to write a paper or if I could draw a booklet about famous drivers that maybe Sam would write since he's good at writing and likes cars like I do. I'd want to know if Sam and I could work together on those heroes thing instead of working alone. And, I'd want to know if Sam and me (sic) could share it with the class when we finish and have them judge it rather than have the 'gang' grade it."

I thought these questions were valid and relevant to Ronnie's concerns. He, according to Howes (1974), was ready to operate at Level III of the decision-making matrix.

I concluded from these observations and informed interactions that Ronnie wanted to get involved, but the "gang", as he referred to the team, had closed out openings for the Ronnies in Room 4. A serious gap in levels of aspiration and communication existed. The hoped for trust, desired academic growth, and needed independence were being forsaken because the parties involved could not open-up the structure to allow for individual differences, styles and needs.

There is no guarantee that even if both Ronnie and the teachers had been on the same level of decision-making responsibilities in the phases of the what, how, why, and who of learning that success would be realized. But, at least inroads into turning some or all of the learning over to the learner could have been initiated.

References

Howes, Virgil M. Informal teaching in the open classroom. New York: MacMillan Publishing Co., Inc., 1974.

Timmermann, Tim, & Ballard, Jim Strategies in humanistic education, Vol 1. Mandala, 1975.

"REAL" INVOLVEMENT IN THE EDUCATIONAL PROCESS

Susan Wolfe

Why is it that we as adults continue to be surprised by the answers we get from children, especially when we think we know the answer? They astonish us with the freshness, simplicity and "rightness" of their answers, usually one that is different from what we were expecting. I, for instance, asked them, "What have I done as a teacher that you will remember, or that helped you learn some fact?" Was I expecting a listing of the content they had learned? Evidently so, because their answers were not what I had expected. Their first answers were primarily about the way I taught, how my personality interacted with theirs. They gave practically no "content" answers.

What I heard them finally saying was that what I was as a person, and how we related to each other in the classroom was the most important thing they had learned. They sensed what recent research has tended to support, that the most important thing in the classroom is the teacher.

What then does this have to do with "real" learning? It is related to the perception of what is real; it has to do with the crap-detector in Postman's and Weingartner's Teaching as a Subversive Activity. [1] Children have the best crap-detectors of all. They unswervingly sense what is real; they perceive what is behind the mask, or hidden by the deodorant, the things that are so obvious that we miss them.

Christ told his disciples that if they became like little children that they would be closer to His kingdom. Elsewhere, Christians are told that "You shall know the truth, and the trugh will set you free." [2] Children know the truth. They are not fooled by hyprocracy or people who do not reveal their "real" selves in the personalities they project to them.

From another viewpoint there is the most obvious fact of our existence, that each person is a part of the infinite web of life that exists in subatomic particles as surely as it is evident in our expanding universe. [3] We are somewhere between the micro-universe and the vast space of the cosmic universe. We are part of the infinite, a link in the chain of relationship.

Occasionally, we, as adults, sense the mystical connection between ourselves and what is usually called the "environment." We sense it in the mundane affairs of having a tooth filled, or putting on contact lenses or when we crawl into what, from another perspective, must look like a beetle-like shell we use for transportation, i.e., a car.

Children know that connection. They know that a meadow does not exist for them until it has been run through. A small furty ball is not a bunny until it is held against a cool cheek. Water is NOT until it trickles down the throat. A puddle is not wet until it is splashed in. A river does not exist in a cup of water taken from its flow. They remember all these things that we have forgotten.

In the Velveteen Rabbit, Margery Williams tells about what is real. She says that "real" is an internal symbol which exists apart from that easily destroyed physical thing that sets in time and space. "Real" cannot be destroyed because it is inside a person. It is a pwrt of that infinite universe, and has become so by making the journey from outside our skin to the inside. And once something is "real" it can never be destroyed, for it exists in the loving heart of the person who has experienced it.

If we take these views of "real", then what are the things that could happen in the classroom that are "real"? How do we best involve ten to fourteen year-olds in "real" learning?

First, it should be obvious that we cannot do it. At best we can only hope to provide:

1. Objectives appropriate to the developmental status of the learners,
2. Concrete opportunities to interact with materials (and for older children, ideas) in a meaningful way, a "real" way,
3. An atmosphere where boredom is non-existant, and where the excitement of preparation for learning perfumes the air.

Then, having provided those things, we must be "real" living proof of the existence of positive expectancy. We must be genuinely excited about what is taking place or is going to take place, in the child and in ourselves. Then, if we're lucky, and the alchemy known as interaction is triggered, "real learning" will take place. The kind of learning that will be remembered perhaps as much for the facts that were miraculously planted in a child's mind as for too the fascinating way they were learned.

This has all been said before, that the personality of the teacher provides the creative fire to set the process going. We just have to remember it.

It is imperative that we remember, because we are the ones who can brush away the decay of boredom from the small seedling of a child's curiosity and expose it to the sunlight of excitement. That will allow growth to occur: the very special kind of growth that is appropriate to that child, that very special "real" little person.

References

[1] Postman & Weingartner Teaching as a subversive activity. New York: Dell Publishing, 1969.

[2] The Bible, Matthew 19:14, John 8:32.

[3] Alan Watts On the taboo against knowing who you really are. New York: Vintage Books.

[4] Margery Williams The velveteen rabbit. New York: Doubleday & Co.

OPENING UP THE CLASSROOM

Nancy J. Silver

Defining Open Education

Before engaging in a discussion of an open classroom, it might help the reader to understand what open education is. There are probably as many definitions of open education as there are teachers in open classrooms. One could equate open education with individualized learning -- that is, teaching and learning methods which focus in on individual differences rather than on a total class or teaching to the "average" group. This does not mean that the teacher instructs each student individually or that there is no more group instruction. It does mean that students are members of various groups in order to have various experiences, and the teacher provides many choices for these experiences so each student can succeed on his particular level of ability.

Learning Centers

The use of learning centers is one way for individualizing instruction and opening up the classroom. Learning centers can be operated in self-contained and departmentalized classrooms, team teaching, homogeneous or heterogeneous groups of non-graded classes.

The teacher's role is changed when learning centers are used. The teacher is no longer the "lecturer", but rather, becomes the guide, facilitator, organizer and resource person.

A learning center is an area of the room which contains a variety of materials and activities to teach, reinforce and enrich a skill or concept. The center should be geared for the varying abilities and interests of the students. Each center should contain all materials necessary for the students to learn and discover. Such materials would be books, games, paper, pencils, erasers, crayons, scissors, dictionaries, self-correcting activities, manipulatives, etc.

In a self-contained classroom, there would be a center for each subject taught. Within each center would be the materials necessary for challenge, review and success for each student. For example, a Social Studies Center might include filmstrips and viewer, books, magazines, newspapers, simulation games, activity cards, maps, and puzzles.

A departmentalized classroom would have a center for each sub-topic to be taught for the semester. If a textbook has to be used, each chapter from the book could become a learning center. For example, a math class might have centers for graphing, review (addition, subtraction, multiplication, division), measurement, fractions, and decimals. These centers could be changed frequently depending on need or new skills and concepts being presented or desires of the students.

"What's So" About an Open Classroom

If one were to visit an open classroom, the first noticeable difference would be the noise level. The noise, however, comes from busy, involved, motivated students. Another difference is that the students are free to move freely around the classroom, getting materials, sharpening pencils, getting drinks, conferring with the teacher or other students.

Some activities observed in an open classroom might be several students viewing a filmstrip; making books for the room library; writing stories; constructing with blocks, toothpicks, straws and clay; working on math problems together; using manipulatives to understand fractions; students conferring with the teacher; the teacher presenting a reading game or reviewing a math concept with a small group; students planning their own work schedules; a teacher discussing a discipline problem with the students and getting their feelings and ideas; students sitting on an old couch or in a bathtub reading; or students writing scripts and making puppets to present a play to a primary class. The list goes on, because in an open classroom, the students are limited only by their own imaginations with the teacher as a guide.

Planning the Open Classroom

Before opening up the classroom, the teacher must make a commitment to do so. This means being realistic about the expectations of the students, the "what's so", and being able to step down from the role of full time "lecturer". It means understanding there will be more noise and movement. It means that the teacher will need to help the students learn how to share, cooperate, work in group situations, make choices, have discussions, take care of and be responsible for materials, etc. It also means being willing to try it for at least a year. Several weeks is not long enough for the students or the teacher to adjust. Physical arrangements may need to be changed several times in a year.

Once the commitment has been made, the teacher should read, observe in open situations, take stock of his or her classroom and plan on paper how the room will look, what centers to create, what to include in each center, and how the students will use the centers.

Don't be afraid to ask the students, "If you were the teacher, how would you arrange the room?" "What centers would you have?" "What kinds of materials and activities would you include in the centers?" Chances are if the students help in the planning, setting up and executing of the centers with the teacher as the guide, they will be more interested, creative, and involved.

Setting Up the Classroom

After making the commitment, the next step is to start moving the furniture. Group desks together if tables are not available. Beg, borrow, buy or improvise dividers, book shelves and equipment. Bug the swap meets and rummage sales.

Keep in mind that how the centers are arranged and what is placed in them determines the atmosphere and expectancies for learning. Every part of the room should be a potential for experience, discovery and success.

Have everything necessary at each center for working. This will eliminate unnecessary movement, questions and excuses. Label each center as to what it is -- MATH, READING, LIBRARY, etc. If six pencils, scissors, boxes of crayons, etc. are not available for every center, each student could carry a shoe box with his own supplies to each center.

Room dividers. Room dividers can be made from cloth hung from dowels, eg cartons stapled together and hung from the ceiling, two or more pieces of tri-wall hinged together and folded accordian style, portable bookcases, filing cabinets and anything else that comes to mind. These room dividers not only separate areas of the room, but add to the display area for students' work.

Storing materials. Open storage of materials not normally found in the centers add to the students' responsibility and allows them to become independent workers directing their own activity without relying on the teacher.

An inexpensive shoe holder (the kind with pockets) can be a way of storing such things as stapler, staples, tape, glue, brads, pins, paper clips and scissors. Each pocket is labeled.

A saw horse turned upside down is a good way to keep large charts, projects and art work.

Bottle boxes with the dividers can be painted or covered with contact paper and used to store projects, paper, or activity cards. They can also be used as individual cubbies for each student to put finished work in that he takes as he leaves the room.

Ice cream cartons from the local ice cream parlor can be fastened together pyramid style to make cubbies and storage spaces.

Taking attendance. Since there will no longer be a specific seating arrangement, attendance taking could be a problem. An easy solution could be a can and clothes pins. The student's name is written on the clothes pin and all pins are clipped around the edge of the can. As the students enter the room, they drop their own clothes pin into the can. The pins left over are the students who are absent.

The "Common". There will be times when it will be necessary to have larger or total groups together. A rug can be put in the center of the room for this purpose. Another possibility is to obtain rug samples to use as individual floor mats. They can be stacked up in a corner somewhere and taken as needed. It's interesting to see what happens when the teacher gets down on the floor with the students and becomes another "member" of the group.

When Work is to Be Assigned

Even in an open classroom, it will be necessary to assign work to students. The work to be assigned will determine how much time the students

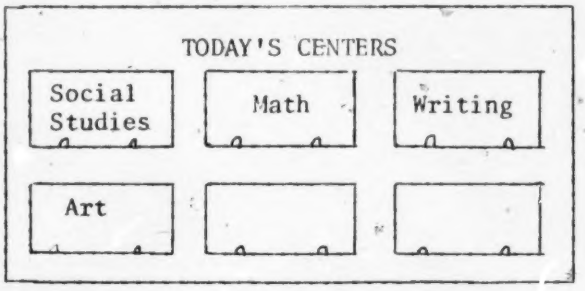
will spend in the center -- 15 minutes to several days. If the assignment will take more than a day, inform the students so they won't feel frustrated about not finishing in one day.

In a self-contained classroom, 3 or 4 assigned centers for the entire day would be sufficient with an assignment requiring no more than 20-25 minutes for the average student. The assignments should be made with the ability of the student in mind. Give the students several choices of how the assignment can be done. Let them contract what work they will do and how it is to be done. One student might write a long story while the "non-reader" will dictate his story to another student. If a small group decides to do a report on the History of Transportation, one student might do the research and read the information to the rest of the group. One student might do the writing, another (perhaps the "non-reader") will do the illustrations, and a fourth might present it as an oral report to the class. They could even write their own evaluation or test to find out what the other students learned. The four students have had a part in the report and all have learned from it.

In a departmentalized situation, the students can be assigned 3 or 4 centers for the week -- a different one each day with one day to share finished work or evaluate the centers.

Another way of using the centers for the week would be to have total group activities on Monday to pre-ent new concepts, introduce skills, and begin units. This would be the time to show movies to the entire class, have resource people come in, teachers lecture. The next three days can be small group activities in the centers to develop, reinforce, enrich the skills and concepts and develop the units. Friday can be evaluation and sharing day to find out which students need further instruction. Friday can also be "discovery" day. The students go to any center they choose and use the materials in their own creative ways.

A chart can be used to indicate the centers assigned for the day.



The directions for activities at the center will be written on the board or chart at each center. The students work at the center as long as necessary to finish a task and moves on to the next center. This allows enough time for the slower students to finish their work and the faster students can move on from "teacher chosen" to "student chosen" activities. The number of chairs at a center naturally limits the number of students at any one time.

While students are working in the centers, the teacher is free to move around and work with individual students. Students who have similar needs can be called together for small group instruction. This means that no student is stereo-typed into a high-average-low group.

When Problems Arise

If the students are in on the planning and operation of the centers, and are more motivated and involved, chances are there will be fewer discipline problems. However, there will be times when the room is unnecessarily noisy, spit balls are thrown, tripping occurs, or a game of tag is played and it will be necessary to do something about it. Don't wait--call the class together to have a discussion. Let the class decide what kind of behavior is unacceptable and why. Let them help decide what the consequences will be when these things happen. If the students help establish the guidelines, they will abide by them more readily.

In Conclusion

The planning and setting up of an open classroom is no easy task, but the rewards are many. The classroom is a more exciting, inviting, interesting place to be for the students and the teacher. The teacher will have more time to spend with individual students and the students will discover a love for learning.

References

Kaplan, S., Kaplan, J.A., Madsen, S., & Taylor, B. Change for children: Ideas and activities for individualizing learning. Pacific Palisades, Calif.: Goodyear Publishing Co., Inc., 1973.

Kohl, H.R. The open classroom. New York: The New York Review, 1972.

Ranniger, B.J. "Social studies learning centers" a working paper. The University of Arizona, 1972.

ONE APPROACH TO LEARNING

Patsy C. Burdine

Much of the literature today concerns itself with the social, intellectual, physical, and emotional characteristics of the transescent and with the teaching strategies and appropriate programs for accommodating the needs generated by these characteristics. One excellent program which has been suggested for this insurmountable task is the Laboratory Approach to Learning. No program could meet all of the needs of transescents, but the Lab approach seems to offer several solutions to problem areas.

Consider first the social characteristics of the transescent. It is at this time of live a youngster develops an understanding of who he is, what he is, what he is capable or incapable of doing, and his relative value in this world now and in the future. This concept of self is based on an internal frame of reference from within the boundaries of the individual's own skin. During this time he becomes easily embarrassed and often time mistkaes advice for criticism. It is of the utmost importance to him to succeed in whatever he attempts. His concern over what his peers may think about him and his abilities far exceeds his concern over what his parents or teachers may think.

The learning experiences in the various centers in a Lab can be the vehicle for bringing the much-needed success to the transescent. If the activities in a Lab are leveled according to various degrees of difficulty, and if the student's ability is diagnosed and he is placed at the correct level, he will be able to accomplish the task set forth by the activity. He can succeed when working at hiw own level and pace. With continual success, a positive self concept will begin to take the place of the former incompetent and incapable image.

During the transescent years, youngsters undergo a change in mode of inetllectual functioning -- a change from a dependence on the concrete experienced by elementary youngsters to the more abstract thinking similar to that of the adult. They must still have experience with information prior to performing mental functions using it, but no longer does the experience have to be direct.

The transescent youngster is curious and inquisitive. He prefers active learning activities and interaction with his peers during these activities. He is concerned only with immediate and short-range goals. He may show a strong, intense interest in a variety of topics one day and then abandon them completely the next. He has a short attention span and is easily distracted. It is during this time that the transescent begins to evaluate his personal capabilities, both his attributes and limitations.

In addition to his curiosity and inquisitiveness, the transescent is also full of energy and enthusiasm. He has progressed to a point in his education where he is ready to learn about what makes the world tick. In short, the transescent is usually a turned-on kid. He has acquired the capabilities to gather information about himself, his fellow students, and the subject material and use it. He can deal not only with reality but also with the realm of possibilities through creative and intuitive thinking. In essence, the student in this age group usually wants to explore and to derive meaning which encourages further exploration.

Through the use of a variety of relevant learning experiences, these intellectual characteristics can be accommodated in a Lab situation. High interest activities requiring a short time for completion are the most popular with transescents. Independent study experiences which give the students the opportunity to experiment, dream, and discover are also important. A Lab well stocked with these kinds of activities can be a partial answer to the intellectual needs of these youngsters.

The physical characteristics of transescents are evidenced by their awkward and clumsy movements due to the fact that bone growth has preceeded muscle growth. They are extremely restless and have a great need to release physical energy. Being extremely active one day and visually tired and worn out the next is due to the variance in their energy levels from day to day.

The Lab approach can aid in relieving the restlessness and energy spurts exhibited by transescents. The physical make-up of a Lab allows freedom and requires movement from center to center. Instead of being forced to sit in one uncomfortable position for a span of time, the student in a Lab can relieve his restlessness and his energy spasms by moving from one area to another to either get materials or to initiate a new project in a different center.

The emotional behavior of the transescent can best be characterized by the word "changing." He changes from being contented and amiable to that of being aggressive, belligerent, and argumentative. His emotions seem to fluctuate frequently. At one meeting he may seem hurt, sad, jealous, or competitive; at the next, worried, cheerful, affectionate, or timid. His anger is more intense and deeper than that of the younger child, and he may strike out with more fervor. It takes him longer, also to recuperate from emotional outbursts. Tears are usually standing in the wings waiting for the right cue.

The physical make-up and the activities in a Lab setting again play an important part in helping to ease the transescent through this difficult time of development. Transescents have a need to communicate which is evidenced by their excessive talking. The Lab setting can accommodate this need through group discussions, role playing activities and drama productions. Being able to talk about his frustrations, fears, and failures to others who are experiencing the same feelings can lessen the youngster's aggressiveness and belligerency. He realizes he is not alone and different.

The Lab teacher usually has time set aside for conferencing or just listening, which can be of immense value to the transescent who has rejected communication with his parents. He recognizes that the teacher who is interested in him, who is fair, who has a good sense of humor, and who is knowledgeable of his subject area is an asset. Each act of teacher behavior directed toward the transescent affects his understanding of himself. Thus, through this difficult emotional time, the teacher may be the one person who can provide the opportunities through activities and personal encounters for the transescent to understand his emotions and begin to get a grasp on them.

In summary, it can be said that students in the middle schoolage group are literally between the "mother hen" protective atmosphere of the elementary schools and the more subject matter oriented high school. They are temporarily "free" to "explore." On the one hand, they demonstrate boundless curiosity and enthusiasm and energy. On the other hand, they demonstrate rapid changes in temperaments, attitudes, and interests. It is a continuous and challenging task to provide a school program which best

meet the needs of these students. The Lab, however, with its specialized activities, its physical accommodations, and a competent teacher appears to be an approach which has the physical, emotional, social, and intellectual well-being of transescents as its goal.

STRUCTURE FOR OPENNESS: AN EIGHTH GRADE UNIT ON EXPLORATION

Thomas Owen Erb

An open classroom in the middle grades can allow for significant student decision making and still promote basic skills development. What is required are teachers who are clear as to the amount of teacher structuring required in order for students to productively exercise their capacities for decision making. Given the middle schooler's concern for peer interaction and approval, necessary social skills can be fostered at the same time other objectives are accomplished.

At a time when American space exploration was reaching a climax in the late 1960's, the two members of the language arts/social studies interdisciplinary team took advantage of the students' interest in space exploration to structure a six-week unit that would allow both group and individual decision making on the part of students while at the same time developing specific skills within the subject framework of the team. The teaching team met two groups of eighth graders every day: 53 students in a morning block of time and 46 in the afternoon. Since the teachers were primarily interested in helping students develop group process skills, they had to classify their objectives for the unit and provide enough structure so that the students could effectively practice group decision making.

The teacher decisions necessary to set up the learning environment fell into two categories: setting overall objectives for the unit and providing some classroom structure based on these decisions about objectives. The basic objectives were not left to the students themselves or to some collaborative student-teacher decision making process. Based on their understanding of early adolescents and their sense of responsibility to improve basic skills the two teachers formulated ten objectives for the unit. Four were primarily aimed at developing social group skills; four, at developing basic communications and thinking skills; and two objectives combined the two skills categories.

The social skills that these teachers sought to develop related to working in small groups. The first objective was to develop small group organizational skills such as choosing leadership and defining and dividing the labor to be done. The second objective was to develop the skills to coordinate the work of several committees. Thirdly, developing skills in brain storming and troup dynamics was an objective. Finally, the teachers intended to help students develop skills in role playing. Objectives like these are not conducive to a conventional classroom setting where teacher presents material and students either absorb it or ignore it. Instead, active participation by students working in small groups is necessary to accomplish these social skills objectives.

At the same time that social skills were to be developed, the teachers hoped to improve several basic individual skills. The first objective in this regard was to develop skills in using a library/resource center. Locating materials and keeping orderly records of the information found were skills that would assist the individual committee members to make a contribution to their group's work. A second objective was to have students apply knowledge and skills to new situations. Thirdly, the teachers sought to help students develop the skills to draw on and pull together their own recent experiences by organizing their thoughts in their own minds. These last two objectives were to be evaluated by the way the students carried out the fourth objective: to write an argumentative essay.

Two aspects of the small group work were designed to integrate individual skills involved with information processing and thinking with group process skills. The first of these was to promote group problem solving skills such as defining a problem, identifying resources to help in solving the problem and developing a solution. The evaluation of the committees' group problem solving skills was to be based not only on teacher observations of the groups at work, but on the groups' abilities to produce final reports. The final objective was to promote the skills required for a public persentation by having each group present an audio-visual report of their committee work to the rest of the class.

To this point we have not mentioned any student activity or decision making. All of the above objectives were decided upon by the team of teachers before any student involvement occurred. In fact, even more teacher structuring would be required before the students had enough framework within which to accomplish the objectives.

The vehicle for integrating language arts and social studies was a radical revision of the customary unit on the "Age of Exploration." Working under the assumption that the problems that men face in exploring the unknown do not change basically from one era to another, the team projected the class several years into the future to plan a simulated voyage to an imaginary planet in the solar system of Alpha Centauri, the star nearest our own sun. The teachers also decided that each class of students (AM & PM) would define the problems that they would face on the voyage. The students would then select themselves to work on committees each designated to investigate an identified problem and to report findings to the entire group. The teachers also decided to require a written essay from each individual at the end of the unit.

The time had come for the students to become involved in their voyage to Alpha Centauri, a challenge that all but the most literal of eighth graders found intriguing in the late 1960's. To set the stage for their exploits the students read and discussed Ray Bradbury's "Dark They Were, and Golden-Eyed," a science fictional story of a future trip to Mars that encounters intelligent life. Each class, through an open ended discussion, defined the problems that would have to be solved in order to make a safe voyage to Alpha Centauri. As ideas were tossed out they were put on the board and later grouped into related sets of problems.

The morning class decided it needed seven committees: Rocketry and navigation, to design a space craft and fly it; finance, to raise the

necessary funds; life support, to provide for food, water, oxygen, and waste; government, to guide the whole endeavor and run the new colony on Alpha Centauri; defense and foreign relations, to represent the voyagers in any encounter with other beings and defend their well-being; city planning, to plan the environment on the new planet; personnel, to determine what characteristics the prospective voyagers should possess and to plan for the recruitment of such people. The afternoon class had more difficulty in defining the problems it would need to solve. Ultimately, this group also decided on seven problem areas but defined them differently than the morning group. Three committees essentially duplicated those set up by the other class: rocketry and navigation, defense and foreign relations, and city planning. However, government and finance were combined into one committee. The rest of the work to be done was organized around these three committees: safety; communication and records; and health, welfare, and personnel. The problems to be solved were problems of the group, not individual problems. The required decision making at this stage was at the group level. All members of the class, or mini-society, were bound by the group decisions. After having defined the problems to be solved as a group, individuals then selected the committees upon which they wished to work.

At the first committee meeting groups were not just turned loose and told to solve their problems. More teacher structure was evident to help the small groups direct their decision making. Each committee was assigned three tasks to complete at its first meeting. Although these tasks were assigned by the teachers, the products were not prescribed. Each group was asked to select a chairperson and a secretary to assist in organization and record keeping. Secondly, each committee was to decide what its responsibilities were. Finally, at the close of the meeting time, which took place in the library/resource center, each group had to hand the teachers a statement of the work they planned to do. The second committee meetings were also subject to teacher structuring aimed at helping the committees make some group decisions without too much floundering. Building on the decisions of the first meeting each group was asked to divide, among the committee members, the work outlined to do. Then each committee was asked to discuss methods of presenting its findings to the entire class. At the end of the period tentative plans for committee presentations were to be given to teachers. By the end of the second committee meetings the students had been provided enough teacher structuring to move their own decision making along without bogging down in detail, but at the same time not prescribing the outcome of the students' decision making. The direction having been supplied by teachers' structuring moves, the committee work proceeded without further teacher direction. The two team members henceforth functioned as consultants to the committees on both substantive and procedural matters. Other consultants who were used included a school psychologist who assisted the personnel committee, and a science teacher who assisted the rocketry committee, as well as a McDonald Aircraft engineer who was secured through the local talent pool. During the periods of committee work a representative of the government committee wrote the President of the United States to secure a charter for the voyage.

The committees worked for a couple of weeks to solve the problems in their respective areas. Their activities culminated in multi-media group

presentations to the rest of the class. Students were given the additional option of being evaluated as a member of the group or as individuals. Although some students opted for the latter, most students stood by the committee reports and were evaluated on the basis of how well the committee as a whole solved the problems it had defined for itself.

All students were also given a final individual "test" on the exploration unit. However, in the spirit of openness within the conditions specified by the team teachers, the students were free to create their own solutions to the final problem. The final assignment was this:

> Assume that you are a member of a congressional committee that has been studying and investigating space exploration. You have been asked to write a report (based on your research) to SUPPORT a new budget for further space exploration. In your report you should make every effort to persuade other congressmen who have not been on the committee to vote in favor of this new Space Budget.

Students were encouraged to list arguments for and against space research before beginning to write. They were urged to think of facts, opinions, and language that would be convincing to the reader. This assignment allowed the student much leaway in organizing a written paragraph. At the same time it was structured enough to foster basic writing skills which were among the goals identified by the teacher.

While open education theorists could argue over whether or not the balance of teacher structure versus student structure described in this unit is on the side of open education or traditional education, it can be argued that this unit is situated well along toward the open education end of the continuum. The concept of open education is aimed at keeping student boredom to a minimum whether it is caused by either too much teacher decision making or so little that the students get bogged down in their own lack of a sense of direction. This space exploration unit is an example of a blend of teacher objective setting and structuring with many opportunities for meaningful student decision making. This unit demonstrated that the concepts of open education are also applicable to group as well as individual decision making. The latter point is very important to keep in mind when working with gregarious early adolescents. Whereas the theme used in this case may or may not work with early adolescents in 1978, imaginative teachers who are in touch with their students can select themes that are amenable to the blend of teacher structuring that promotes effective student growth in decision making, group process skills, and basic communication skills.

A LOOK AT DISCIPLINE

Lorraine Hardesty

A poll of the general population of a midwestern city showed that pupil discipline was identified as the biggest problem faced by the schools

(Central Research Corporation, 1977). The most recent Gallup poll of educators reported that control of pupils ranked second only to lack of financial support as the critical issue facing public schools (Gallup, 1973). While teachers and patrons appeared to agree that pupil control was a serious problem, they did not agree on who should bear the responsibility for rectifying the situation.

Discipline is inherent in any consideration of the school organization. Historically, the way pupils and teachers interact in the school setting is personified as control balancing. In fact and fancy, "behaving in school" has become as much a part of the national heritage as "apple pie," and flavors the lore that surrounds schools. Pupil control is a concern to which both professional and lay people can relate because nearly everyone has directly experienced pupil control in some capacity, as a pupil, a parent, a teacher, or a combination of roles. Discipline, which is defined as pupil control for this paper, is one thread in the fabric of the school culture that is highly visible, and the purpose of this paper is to examine some theories and research concerning pupil control.

Pupil control is conceptualized by Willower, Eidell and Hoy (1969) as ideal types ranging on a continuum from "humanistic" to "custodial." These researchers based their control theories on the premise that group life in the societal context implies restraint and requirement of behavior and that rules, norms, and role expectations are controlled through systematic manipulation of rewards and penalties or sanctions. Sanctions are described as either punitive, using such devices as coercion, ridicule, withholding rewards, and imposed discipline, or nonpunitive, utilizing understanding, empathy, appeal to the individual's sense of right and wrong, and self-discipline. Humanistic ideology, one ideal type on the continuum, reflects an orientation to the individual students in a trusting, accepting atmosphere. Custodial ideology, the ideal type at the opposite extreme on the pupil control continuum, reflects an orientation that is impersonal and stresses maintenance of order.

Willower, et.al. (1967) drew heavily upon Waller (1932) for their concepts of control balancing and interaction and of the school as a social sytem. Waller (1932) conceptualized the school as a closed, artificial, despotic social system where interaction centers around learning, and teaching determines the political organization of the school. Within this framework, the emphasis is on the dominance of the teacher and subordination of the student, and the dominant-subordinate inference precludes the establishment of contact between teacher and pupil on a common human level. The teacher is, then, thrown back to the teacher group for friendship and sanction, and to formalism in lieu of teaching. Formalism, according to Waller (1932), is the communication of dead information rather than living insight: a tendency to use routine methods in order to teach definite, but relatively unimportant, facts and pupil control that excludes real communication. Waller (1932) suggested that natural order should prevail and that in a healthy situation pupils and teachers enjoy an interaction of personalities that is spontaneous, inevitable, and whole-hearted. Waller's (1932) observation sounds remarkably current:

> There is a constant interaction between the elements of the authoritative system; the school is continually threatened because it is autocratic, and it has to be autocratic because it is threatened. The antagonistic forces are balanced in that ever fickle equilibrium which is discipline (p.11).

Coleman's (1961) study of high school students stressed the importance of system boundaries and described the student group as a small society within the limited school society. His findings showed that high school students have very little interest in academic achievement for its own sake or in the approval of their teachers. He advocated that educators must "learn how to control the adolescent community as a community" (p.12), and suggested that substituting cooperation for competition as a motivating device for academic achievement is inconsistent with the psychological challenge necessary for learning.

Coleman (1961) contended that competition is motivational, but that it is also relative to those involved in the competition. When students compete against their peers and fail, they are psychologically hurt; and, when they win, their friendships are eroded. Competition, then, should be structured to allow the students to compete for, not against, the group. Within the context of competition, Coleman (1961) suggested that attention needed for learning is diffused when the sources of reward depend upon the subjective judgement of a "judge" and that the system forces teachers to be judges. He posited that "much of the rebellion and the conformity, the alienation and the subservience of students can be traced to this role of the teacher" (p. 323). The old levers for pupil control, teacher approval and disapproval, appear to have lost potency in the societal context of schooling.

The conceptualization of the role of the teacher as a "judge" appears congruent with the autocratic model of custodial pupil control ideology. Research studies (Hoy, 1973; Rafalides & Hoy, 1971) reported that students' sense of alienation, powerlessness, normlessness, and self-isolation were significantly related to teachers' custodial pupil control ideology. Willower (1970) suggested that teachers resist changes in innovations that threaten their role and that teachers prefer the existing patterns of pupil control, organizational routine, and status relations between teachers and pupils. He further stated that teachers could be expected to resist any changes that they considered potentially disruptive to latent protective functions. Teachers, then, may not be expected to abandon their judgmental positions within the boundaries of the school's social system.

Public schools, according to Carlson (1964), are categorized as service organizations, as opposed to production organizations, and are typified by a social relationship that is established with the "objects" of work and motivation. His typology for service organizations is based on the element of organization-client selectivity: those organizations with clients who are compelled to be members of organizations that are required to provide them membership and service. Theoretically, these service organizations are protected and guaranteed existence; therefore, they are

slower than other organizations to change and adapt in order to survive. They are cared for like the domesticated animal and are labeled "domesticated," as opposed to "wild."

Carison (1964) suggested that the lack of voluntary relationship between organization and client requires internal adaption of control to accomplish the goals of the organization and that adaptive mechanisms must be used. The domesticated organization (school) adapts to the unselected clients (pupils) through (a) segregation, or (b) preferential treatment. Clients (pupils) adapt to the organization (school) through (a) receptive adaption, (b) situational retirement, (c) rebellious adjustment, (d) side-payment adaption, or (e) dropping out of school.

Carlson (1964) further noted that through segregation or removal of pupils who hamper the achievement of the goals of the organization goal displacement may occur. He suggested that teachers see education as the goal for some pupils but substitute discipline as the goal for other pupils. A 14 month field study conducted by Willower and Jones (1967) furnished data that led the researchers to view the school as a social system with control as the dominant theme. Goal displacement occurs when discipline, not education, becomes the primary concern for the teacher.

Education not only suffers from conflict in goals which leads to lack of purpose through competing task systems that conflict with one another, but, also, suffers from "pluralistic ignorance" (Biddle, 1964). Biddle (1964) noted that teachers, school officials, parents, and pupils share misconceptions of how discipline is viewed by others. He proposed that liberal norms have not been generally recognized, and such pluralistic ignorance may lead to inappropriate behavior standards. Other empirical studies (Packard & Willower, 1972; Willower & Packard, 1972; Yuskiewiez & Willower, 1973) support Biddle's premise: they reported that teachers perceived their fellow teachers to be more custodial than they actually were. The Packard and Willower studies (1972) also revealed that teachers, principals, and counselors perceived principals as more custodial than they actually were and that counselors were perceived accurately by teachers, but principals and other counselors thought that counselors were more humanistic than they actually were.

Earlier studies (Willower, 1967, 1969) noted that teachers, especially beginning teachers, were prone to change their behavior in accord with their perceptions of the prevailing custodial norms of the school. Roberts and Blankenship (1970) reported that student teachers felt socialization pressure to exhibit custodial change in pupil control, and they perceived their cooperating teachers as having more custodial pupil control ideology than they actually had. Student teachers were found to become significantly more custodial after a year of actual teaching experience (Hoy, 1967; 1968; 1969).

Willower (1965) hypothesized that those who were in position of most direct relationship with large numbers of unselected clients would feel most threatened. The youth-clients at the secondary school level were perceived as potentially more rebellious and resistant to organizational control because of their size and maturity than the child-clients at the

elementary level (Willower, et.al., 1969). This rationale was basic to several studies that found that secondary teachers and principals were more custodial than elementary school teachers and principals (Hoy, 1968; Willower, et.al., 1967, 1969; Willower & Landis, 1970; Yuskiewicz & Willower, 1973). Other empirical research (Hardesty, 1978) revealed that grade levels were divided into three groups (elementary, junior high, and senior high), rather than two groups (elementary and secondary), the elementary and senior high school groups were not significantly different in pupil control ideology and that the junior high school group was significantly more custodial than either the elementary group or the senior high school group. Data from this study suggested that the junior high school teachers felt threatened by changes due to possible reorganization into middle schools, not the pupils.

Inferences drawn from the research can enhance our understanding of the discipline dilemma. Teachers and pupils interact in a social organization which is required to accept and serve unselected clients who are compelled to be members of the organization. Group life implies restraint and requirement of behavior and in schools the superordinate-subordinate inference places teachers and pupils in adversary roles. Discipline is defined as pupil control and personified as control balancing.

Teachers ideologies of pupil control is conceptualized as ideal types on a continuum from "humanistic," which reflects a trusting, accepting orientation toward pupils, to "custodial," an orientation that is impersonal and stresses maintenance of order. Rules, norms and role expectations may be manipulated by the teacher through rewards, penalties or sanctions which may be either punitive or nonpunitive.

Teachers, pupils and parents appear to suffer from ignorance of how discipline is viewed by others and teachers feel socialization pressure to conform to perceived custodial norms. Beginning teachers are especially prone to become more custodial as they become integrated into the organization.

Teachers tend to resist change that threatens their superordinate role. They may become more punitive and judgmental to widen the status gap between themselves and their pupil clients, which requires them to look to teacher colleagues for friendship and sanction. Teachers appear to adapt to perceived threat by espousing more custodial ideologies and by segregating or giving preferential treatment to the unselected clients.

Pupils feel an increasing sense of alienation, powerlessness, normlessness and self-isolation as custodial pupil control increases and the teacher-pupil status gap increases. They adapt to the organizations imposed norms by receptive adaption, situational retirement, rebellious adjustment, side-payment adaption or dropping out of school. Discipline may displace education as a goal in the school organization.

Until superordinate-subordinate roles are modified to allow teachers and pupils to establish education as the primary goal of the school, until teachers and pupils can interact in an atmosphere that is free of threat and until liberal norms are recognized as generally acceptable, the control balancing may be expected to continue to trouble the school organization.

References

A report: Views on public education in Wichita. Topeka, Kansas: Central Research Corporation, 1977.

Biddle, B.J. Roles, goals and value structures in organizations. In W.W. Cooper, H.J. Leavitt, & M.W. Shelly III (Eds.), New perspectives in organizational research. New York: John Wiley & Sons, 1964.

Coleman, J.S. The adolescent society. New York: The Free Press, 1961.

Gallup, G.H. Fifth annual Gallup poll of public attitudes toward education. Phi Delta Kappan, 1973, 55(1), 38-51.

Hardesty, L. Pupil control ideology of teachers as it relates to middle school concepts. Paper presented at the annual meeting of the American Educational Research Association, Toronto, 1978.

Hoy, W.K. Dimensions of student alienation and characteristics of public high schools. Interchange, 1972, 3(4), 38-52.

Hoy, W.K. The influence of experience on the beginning teacher. The School Review, 1958, 76(3), 312-323.

Hoy, W.K. Organizational socialization: The student teacher and pupil control ideology. Journal of Educational Research, 1967, 61(4), 153-155.

Hoy, W.K. Pupil control ideology and organizational socialization? A further examination of the experience on the beginning teacher. The School Review, 1969, 77(3-4), 257-265.

Packard, J.S. & Willower, D.J. Pluralistic ignorance and pupil control ideology. Journal of Educational Administration, 1972, 10(1), 78-87.

Rafalides, M., & How, W.K. Student sense of alienation and pupil control orientation of high schools. The High School Journal, 1971, 55(3), 101-111.

Roberts, R.A., & Blankenship, J.W. The relationship between the change in pupil control ideology of student teachers and the student teachers perception of the cooperating teacher's pupil control ideology. Journal of Research in Science Teaching, 1970, 7(4), 315-320.

Waller, W. The sociology of teaching. New York: John Wiley & Sons, 1932.

Willower, D.J. Hypotheses on the school as a social system. Educational Administration Quarterly, 1965, 1(3), 40-51.

Willower, D.J. The teacher subculture and rites of passage. Urban Education, 1969, 4(2), 103-114.

Willower, D.J., Eidell, T.L., & Hoy, W.K. Custodialism and the secondary school. The High School Journal, 1969, 52(4), 182-189.

Willower, D.J., Eidell, T.L., & Hoy, W.K. The school and pupil control ideology. (The Pennsylvania State Studies No. 24). University Park, Pennsylvania: The Pennsylvania State University Press, 1967. (Monograph)

Willower, D.J. & Jones, R.G. Control in an educational organization. In J.D. Raths, J.R. Pancella, & J.S. Van Ness (Eds.) Studying teaching. Englewood Cliffs, New Jersey: Prentice-Hall, 1967.

Willower, D.J., & Landis, C.A. Pupil control ideology and professional orientation of school faculty. Journal of Secondary Education, 1970, 45(3), 118-123.

Willower, D.J., & Packard, J.S. School counselors, pupil control ideology, and pluralistic ignorance. Student Personnel Association for Teacher Education Journal, 1972, 10(4), 100-110.

Yuskiewicz, V.D. & Willower, D.J. Perceived pupil control ideology consensus and teacher job satisfaction. Urban Education, 1973, 8(3), 231-238.

THE ROLE OF THREE-WAY CONFERENCING IN AN OVERALL AFFECTIVE EDUCATION PROGRAM

Dawn H. Grohs

Affective Education Through Advisement

Surely there is no more important area of content to be presented during the traditional middle years for students than that of affective education. What more necessary mission could one pursue than dealing with the positive development of self in our young. And during this particular period, one of critical change and rapid formation of that self, a need is evident to give appropriate attention to that pursuit.

Perhaps this is the primary force behind the current emergence of the Advisor/Advisee (A/A) or Homebase programs in so many middle and junior high schools. This seems a workable structure for presenting an organized affective education curriculum, allowing each student to claim one adult member of the school staff as his or her advocate. The programs usually are structured so that a definite segment of time is available on a daily or weekly basis for one or more students to meet with the advisor. The primary functions of the advisor for each advisee are to pay formal attention to personal growth, to plan and manage the overall learning program, to monitor and account for the overall learning program, and to actively communicate with parents.

The personal growth aspect of the program is the most extensive, and is reflected in and reflective of all other areas. It will emphasize personal growth in four main categories: knowledge of self, which includes self identity, values clarification, cognitive moral development, perceptions, and human growth and development; expansion of self, which includes creativity, leisure time activities, special interests/abilities, abstract reasoning, role definition, and resource identification; working with others, which includes awareness of others, group process, conflict management, force field analysis, transactional analysis, responding to authority, leadership, accepting responsibility, listening skills, tolerance, and communication; personal work processes, which include time management, resource management,problem solving, decision making, risk taking/experimentation, self-control, and communication.

Planning and managing the overall learning program will involve analysis of the advisees' learning styles, assessment of achievement levels, location of appropriate resources, goal setting, and program design. This area of advisement necessitates close cooperation between the advisor and other members of the instructional staff.

In monitoring and accounting for the overall learning program, the advisor again needs the cooperation of other staff members. This area will call for feedback on progress, problem solving, formal and informal evaluation, and record keeping.

Active communication with parents is the fourth aspect of advisement, with the goal of two-way communication between parents and those involved in the learning program of the advisee. Many methods of communication are utilized, including notes, "Happygrams", phone calls, visits, formal reports, grades, and conferences.

Use of Conferencing in the Advisement Program

In all four areas of the advisement program, the advisor is wise to involve the advisee in as active a role as possible. The personal growth program can involve the advisee in planning activities, running group sessions, contacting and organizing outside resource persons, arranging field trips, suggesting areas of interest to pursue, and giving feedback on effectiveness of the program.

In the areas of planning and managing the overall learning program, monitoring and accounting for the overall learning program, and active communication with parents, the advisee can best be involved through a formal and structured process that lends itself to gradual increase in the advisee's role. Conferencing, particularly three-way conferencing between parent, student, and advisor, has been found to be a most satisfactory method to achieve this end.

The purpose of three-way conferencing is to ensure optimum communication concerning the learning program of each advisee. Through effective communication the three major parties concerned can share in setting learner goals, developing appropriate strategies to meet those goals, and monitoring ongoing progress.

Preparation is the key element in successful three-way conferencing. The advisee must be prepared to share in the conferencing process and trained to assume his/her role. Early in the school year the advisor should plan with advisees the conferencing procedures and develop a meaning role and develop a meaningful role for the advisees to play. Time should be provided for each advisee to collect data on individual strengths, goals, values, learning styles, as well as progress in current school activities. A form should be developed for recording information to be shared in the conference. Advisees might role play the conferencing process to prepare for the initial conferencing.

A Model for Three-way Conferencing

A model for three-way conferencing is appropriate as a structured format to follow in planning and conducting conferences. Although each conference will develop in its own way, depending on material to be shared and persons involved, it is nonetheless helpful to have a plan in mind. It assists by focusing on the overall goal of conferencing and providing procedures to follow to reach that goal.

An initial conference is defined as the first conference held with an advisee and his/her parents during the school year. Even if an advisor works with an advisee for more than one year, each new school year presents an opportunity for another "initial" conference. Some particular purposes for this conference are establishing rapport, setting goals for the year, sharing information about the advisee to assist in meeting goals, and planning programs appropriate to advisee need.

FORMAT FOR INITIAL CONFERENCE

Phase	Activities	Roles
1. Setting the Stage	Introduction, review of conference purpose and format	Advisor leads
2. Progress Report	Report progress, share work samples, discuss current projects	Student reports, parent questions, advisor facilitates
3. Goal Setting	Review student goals, establish parent and advisor goals for student, year-long projection of work, upcoming projects	Student reports, advisor clarifies, parent questions
4. Support Systems	Share pertinent information to assist student meet goals, design supportive strategies, assign roles	Advisor facilitates, student/parent/advisor participate
5. Projection	Plan for feedback, future conferences	Advisor facilitates

Follow-up conferences are those that come during the course of a school year. The purposes are to report progress, review goal achievement, reinforce student efforts, encourage communication, share ideas and concerns, and solve problems.

Phase	Activities	Roles
1. Setting the Stage	Review of conference purpose and format	Advisor leads
2. Progress Report	Report progress, share work samples, discuss current projects	Student reports, parent questions
3. Goal Setting and Review	Review progress toward previously established goals	Student reports, parent questions, advisor clarifies
4. Analyze and Expand Support Systems	Share information pertinent to student success, such as work habits, preferred learning styles, strengths as seen by peers	Student/parent/advisor input
5. Projection	Design feedback procedures, plan future conferences	Advisor leads

This model for three-way conferencing puts the advisee in an active role throughout the conference. The advisee is verbalizing goals, projecting tasks, sharing successes, analyzing problem areas, giving input into planning, and assessing progress. Not all advisees can perform in this way from the outset. A major responsibility of the advisor is to prepare the advisee for ever increasing involvement. As advisee involvement increases, so will personal ownership and pride in the overall learning program.

The advisor is an ideally facilitating agent. As the advisee increases in ability to assume responsibility, the advisor becomes a participant in the conference rather than the director of the conference.

The parent's role is one of listener, sharer of information, collaborator in planning, and monitor of progress. The parent should be encouraged to accept the advisee as increasing manager of his/her learning program -- to encourage growth in this direction. Free and open communication should be sought on plans, progress, needs, problems, future agendas.

Application of Conferencing Model

Although this model is primarily intended as a method of communication among parent, advisee, and advisor, it is also useful in other situations. It is appropriate for goal setting involving student and teacher; problem solving involving student, teacher, counselor; conferences involving student, advisor, administrator; contracting between student and teacher; staffings involving student, advisor, and other teachers.

With some modification, this model is applicable to many situations that demand upon communication, free sharing, active involvement, and group decisions. The key ingredient is involvement of the student in an active and meaningful role. Through this method we ensure for the student ownership of the learning process, growth in personal responsibility, and satisfaction in progress made.

Editors Note:

The film "Cipher in the Snow" is a powerful statement of circumstances leading up to the death of a young student. The film captures the struggle and futility some youngsters experience as they try to grow up and out of negative prophesies. A "cipher" is a zero.

I use the film as part of a course I teach at Wichita State University entitled "Introduction to Middle Level Education." The following poem was written by one of my graduate students after he saw the film for the first time. May you also be able to "love today and never fear the future filled with relationships."

CLIFF
John Rhoads

There was once a pollywog
He didn't know what made him so different
He couldn't laugh
He couldn't hate
He couldn't learn how to jump.

There was once a boy
He was me and I was he
He didn't know what made him so different
He looked like other boys
He looked with eyes like others
He spoke sweet juicy fruit like others
He couldn't learn to write, only erase.

This boy who once was,
died on that winter day.
No one noticed that he was different;
No one knew him.
But all felt his absence when he was gone.

This boy, who once was -
Some say he died of a broken heart
Some say he was forgotten to death
Some say he is a Cipher
he's one of a kind
he's the solution to a puzzle
he's the meaning we have been searching for.

That once-was-boy,
Who seldom laughed and couldn't hate,
jumps in our minds;
Who reminds me of me and
helps me see with more than the
eyes of a snowman;
Who died that I might jump beyond
myself to see others like me -
shy, lonely others.

That once-was-boy is all of whom I am
and also nothing of whom I am.
I must remember him so that
I can love today and never fear
a future filled with relationships.

OPENING CLASSROOMS:

A Step by Step Procedure

Richard Butt

McGill University

INTRODUCTION

Many innovative ideas and desirable practices in education can founder on the rocks of implementation, even though resources have been invested in that process. Actual implementation of an educational innovation can only occur at the classroom level, regardless of any changes in administration, curriculum, or facilities and resources. At the classroom level we have to consider not only current transactions and the desired pattern of transactions, but most importantly, the process of transition from one to the other.

Within open education we have perhaps distilled the basic elements of how the thematic approach, the integrated day and learning centres work, but the field remains littered with casualties who have tried these approaches and apparently failed. There are perhaps even more educators in the wings who, seeing no ways of bridging the gap between current practice and that illusive informal classroom, will remain within the security of the known.

Very few innovative projects provide the teacher with a gradual step-by-step procedure for helping with detailed changes in classroom activities which permit successful learning of new roles for the teacher, child, and instructional resources. We have failed to apply several eternally sound educational principles: (1) Start from where the learner (in this case both teacher and pupil) is and (2) Provide for learning at the learner's pace in increments that will encourage success. What is required is a classroom-based plan which, while pursuing current conventional educational objectives, also has objectives that acknowledge the need for the pupil and teacher to learn new roles, make different decisions, and become familiar with the new instructional media and resources. The nub of the problem, then, is to create transitional learning environments, the objectives of which apply specifically to creating change in classroom roles and transactions until the desired pattern is reached. The purpose of this paper, therefore, is to illustrate such a transitional curriculum which commences from the conventional classroom and leads to the informal classroom. The transitional curriculum initially uses a single subject approach (science) but increasingly encourages an integration of content.

FRAMEWORK AND PROCEDURE

The transitional curriculum must be based on an interactive model since it involves transactions among pupil(s), teacher, and the environment. This model can be used to illustrate the many various instructional strategies that need to be utilized in opening a classroom. Barth (1972, pp. 63-66) used this model to depict traditional and open education.

1a) Traditional 1b) Open

In the traditional classroom (Figure 1a) transactions are mostly simple and unidirectional, the teacher passing on portions of universally accepted knowledge to the student. The goal of the transitional curriculum, the open classroom (Figure 1b), is characterized by much freer interactions, the pupil interacting directly with the environment, gaining pertinent personal knowledge from self-chosen experiences. The teacher interacts in less direct ways than in the traditional classroom, supporting pupils' inquiries by providing materials, suggestions, diagnosing difficulties, and extending learning by making unobtrusive interventions. The teacher minimizes information-giving, since the pupils' task is to find out as much as possible themselves.

The transitional curriculum will attempt to illustrate the balance between facilitating structure and flexibility for each learning step using the roles and interaction of teacher, pupil, and materials. Other pertinent characteristics of each step include: the complexity of the learning task, the degree of prestructuring of roles necessary by the teacher, and the dominant classroom transaction. Since one crucial objective of this exercise is to make only a small intended change each time, those will be noted. Several of these small steps accrue to create gross changes represented by five phases of the transitional curriculum which lead to increasing levels of pupil independence. Each step and phase subsumes previous steps and phases as the schema builds skills. A new phase is not attempted until the role change objectives of the previous phase have been mastered. This transitional curriculum is not meant to be a panacea or exact recipe but simply an illustration of the sort of thinking and planning that is required for successful opening of a classroom. Several replications of each step will be required until the role objectives and interactions have been achieved.

A TRANSITIONAL CURRICULUM

Phase One: Establishing Two-way Communication

The objective of this phase is to establish two-way verbal interaction.

1.1 Whole class science using a text

The most traditional approach to the teaching of science consists of the teacher using the text to tell and recite portions of science knowledge to pupils who listen, read, write and regurgitate remembered responses. Communication is mostly one-way, from the teacher to the students.

1.2 Whole class, text, and Socratic approach

The first step in moving towards open transactions is to introduce and establish two-way verbal communication. Without changing any materials or classroom set-up the teacher may introduce the Socratic approach which after the usual style of presentation from the text requires that the teacher ask a series of questions, giving little information. The pupils, having been informed of their new role, are given time and encouraged to respond and establish two-way communication.

Phase Two: Eyes On

The objective of this phase is to provide material focus for flexible verbal interaction.

2.1 Whole class science using a film loop demonstration

A suitable activity for this step is a film loop called "Ice Cubes" from Richard Suchman's Inquiry Development Program (1966). The discrepant event of an ice cube floating in one container of liquid and sinking in another container of apparently the same liquid is presented to the students. The teacher presents the puzzling film loop and instructs the pupils that in order to solve or explain the discrepant event they can only ask questions of the teacher which can be answered by a "yes" or "no". Students ask individual questions and build their own explanation of the discrepant event. This high prestructuring of roles reduces teacher information-giving and encourages pupil speculatory thinking and questioning. They develop powers of observation, inference, and the general skills of inquiry without the complications of having to conduct the experiment themselves. The dominant interaction here is two-way communication between students and teacher as in 1.2 but with a visual focus. There is more pupil initiation and less information-giving by the teacher.

2.2 Whole class science using a live demonstration

An activity suitable for this step is a demonstration of "Sink and Float" from the Elementary Science Study Curriculum (1968, pp. 11-13) where everyday materials are presented to the class so that they may predict whether the object will sink or float in a container of water. Several puzzles may be included such as a cork that will sink because it has metal embedded in it or clay that floats since it has a hollow ball inside it. The children attempt to explain the behaviour of these objects.

In this activity the actual materials are present, but the teacher handles them on behalf of the students. As opposed to the previous step there is no stringent role structure here, although the teacher still refrains from giving information. The teacher provides materials, creates puzzling situations, demonstrates, questions, and makes manipulations suggested by the pupils, who observe, infer, identify the properties of objects, classify, question and hypothesize. There is some interaction with peers. The main transaction though is still between the pupils and the teacher but with real materials as a focus. The teacher has control of these materials for their first appearance in the classroom, but pupils may have some indirect interaction with them. So Phase Two has maintained the two-way communication of Phase One but provided eye contact with real materials as a focus for that interaction. Also in this phase the pupil has an opportunity to initiate discussion and develop the intellectual processes of science. The teacher's verbal contribution decreases during Phase Two as the indirect role is gradually assumed.

Phase Three: Hands On

The objective of this phase is to introduce pupils to direct manipulation of materials.

3.1 Individual pupils interact with materials

Each pupil is given a battery, a bulb, and one wire and is asked to find as many ways as possible to light the bulb using only those materials (Batteries and Bulbs, E.S.S. 1968, pp. 9-15). Having built up pupils' intellectual inquiry skills and weaned the teacher away from recitation, Phase Three places materials in pupils hands. This point is usually the critical point in the classroom, for the teacher probably is short of materials which requires the children to work in groups. The excitement of something to hold, plus having to share using undeveloped group skills most often leads to problems! Therefore at this stage it is essential to have enough materials for each pupil, thus minimizing pupil interaction problems. Simple materials and a simple task are further guarantees of success for this first material centred activity.

The teacher role in 3.1 involves careful logistics. S/he carefully instructs pupils as to their task and how they should record what they do. When this is clearly understood by everyone, the teacher organizes the distribution of materials and the pupils may begin their task. The pupils handle the materials, making decisions as to how they will arrange them in order to light the bulb. They observe and record what works and what does not. Having initiated the activity which is usually self-sustaining, the teacher is free to circulate, questioning, responding to inquiries without giving information, diagnosing difficulties, extending learning, and providing technical language when appropriate. The teacher's role basically is to support the child's learning by making unobtrusive interventions into the child's work with materials. It does not consist of hanging around looking lost and doing nothing! The dominant interaction mode in this phase is each child interacting with materials.

The objective of this phase is to get children used to conducting inquiry utilizing their own materials. Once that has been achieved the next phase may be attempted.

Phase Four: Building Group Skills

The objective of Phase Four is to build group skills. Very often the dysfunctional interaction of pupils who haven't been given a chance to develop group skills can ruin a teacher's attempt to change classroom transactions.

4.1 Selected pairs of children work with materials

The most appropriate activity for this step would be something emerging from some task where each individual pupil had been interacting with materials. In this case, one can build on an existing familiarity the materials and type of task. It is logical therefore that we should select another Battery and Bulb (E.S.S. 1968, pp. 9-15) activity for this step. After they have finished the task in 3.1, pupils are asked to work in pairs in order to discover how many different ways they can light two bulbs using their combined materials. The advantage of this task is that it and the grouping, flow naturally from a previous and familiar task. In order to undertake the second task, cooperation must occur. The pupils need each others' materials, and also each others' hands to assemble and hold various possible circuits. The teacher role in this step is similar to 3.1 but emphasis is placed on developing the pupils' skills of working together, pointing out how they can help each other to solve the problem by sharing, cooperating, and discussing. The dominant interaction, therefore, is pupils interacting with each other as well as with the materials. Their verbal interaction aids with problem solution.

4.2 Trios of children work with simple materials

Whereas the previous step utilized a natural approach to grouping with relatively undefined roles, this step, in enlarging the group to three members, necessarily introduces the concept of division of labour and group roles. At the beginning of group work neither the children who have not yet developed the skill of designing and ascribing roles, nor the traditional teacher who is used to being the focus of attention, are able to easily author their roles. They need a supporting structure until these skills have been developed. One of several vehicles which provide for highly prespecified roles but at the same time promote group interaction, is the simulation or game. An activity appropriate for this step is a communications game using any set of blocks with varying attributes of size, shape, colour. This game emphasizes the skills of science.

Two identical mixed sets of blocks are given to each of two group members. One pupil, out of sight of the second pupil (use a screen or have the pair work back to back) builds a pattern with the blocks, each time he adds a block to the pattern he describes as accurately as possible the move so that it can be duplicated, if possible, by the partner. The third person observes and takes note of the proceedings giving no verbal or non-verbal cues. It is his/her role to take part in and add to the discussion of what similarities and differences have accrued in the two patterns after the game has been played for a while. This pupil is in a position to offer comments on properties of objects missed, inaccurate descriptions of moves, and incorrect listening. The teacher, in the meantime, supervises the playing of roles and aids with post game discussions. After each game participants may change roles. This activity, then, permits controlled individual contributions to group activity while pupils learn about it.

4.3 Quartets of pupils work with simple materials or a simple task

When the group size is increased to four it is important to retain simple materials, task and pupil roles. Creature Cards (E.S.S. 1968, pp. 74-77) is an activity which involves pupils identifying members and non-members of groups by comparing and contrasting increasingly complex properties and attributes. One set of cards is given to each group of pupils, requiring them to share, discuss, and cooperate in solving the creature card problem. As opposed to the previous step neither roles nor strategy are prespecified but left to the groups to work out if necessary. The teacher's role here requires an increased supervision of group dynamics with attention being paid to ensuring that all individuals participate in problem-solving. With the creature cards as a common focus the dominant interaction here is probably peer interaction in discussing, testing, and working out decisions.

4.4 Quartets of children working on a complex task, with complex materials

The Mystery Powder activity from the Elementary Science Study Curriculum (1968) involves the use of everyday powders from the kitchen. Children record the appearance and taste of each powder as well as the results of other "tests" involving water, vinegar, iodine, alcohol and heat. They conduct these tests in order to build a matrix of properties of the powders so that they may identify mystery powders which consist of mixtures of the original powders.

This activity is relatively complex, involving multiple materials and requires the members of each group to decide on what role each should play. The teacher's role necessitates carefully organized distribution of materials as well as giving step-by-step clear written and oral instructions as to what is involved. As with previous activities the pupils are involved in manipulating, observing, inferring, classifying, comparing, contrasting, recording. The teacher ensures that each pupil has a turn at each of several roles involved in the activity. After several sessions of mystery powders, pupils will have learned to work effectively in groups while conducting complex investigations and will be ready for the next phase of this transformation.

Phase Five: Implementing Pupil Intentions

Previous phases have separately focused on encouraging thinking, flexible verbal interaction, changing the teacher role from a lecturer to facilitator, gradually moving pupils into direct manipulation of materials, and building group skills. Phase five focuses on a gradual increase in the participation of the learner in conjunction with the teacher in making decisions about how and what to learn. When this phase has been implemented and some integration with other knowledge areas has been achieved, then the open classroom has been created.

5.1 Small groups of children pursue a given task in their own way

This initial step of Phase five provides pupils with a problem to solve together with the aid of some basic materials. The teacher then leaves the pupils to organize small groups who cooperatively decide their own strategy and minor objectives for reaching the teacher set goal. A task which would allow for this sort of decision-making would be "who can make the best paper airplane"? As in the previous phase the dominant interaction is peers interacting with each other and the materials. The nature of this interaction now, however, gives more time to choices and decisions that the pupils are able to make with the supportive help of the teacher.

5.2 Thematic Approach: Children set their own task within a given theme

Having conducted several activities within which children have, in conjunction with the teacher, developed the skills to specify short term objectives and strategies, a thematic approach may be utilized. Much broader than the specific task set for the pupils in step 5.1 this approach allows individual pupils to select their own specific task within the general theme. The teacher may have chosen the theme of "your bicycle" as a project which is both of current interest to the class and a topic which requires some attention in terms of the community with regard to road safety and other concerns. The teacher may introduce the theme to the children by way of a curriculum web which presents possible investigations. They might expand the web prior to selecting their own mini-theme. Children who are interested in similar things have a natural reason for working together. Each group contributes to the knowledge base of the whole class, as they communicate their findings, besides developing investigative, communication, and social skills. In this step the teacher sets the general theme, maps the terrain of possibilities, (Hassett & Weisberg, 1972, pp. 77-78), organizes and coordinates pupil groups and tasks, and assists the pupils as needed. The pupils select or create tasks based on their interests, group themselves accordingly and plan strategy for achieving their objectives. The task complexity, degree of prestructuring, interaction with materials, group size and other factors are therefore individualized and flexible. This step is an ideal time to integrate science (if it has not occurred already) with other curriculum areas. The integrated approach to curriculum which reflects a personal and experiential view of knowledge (Barth, 1972, pp. 63-66) is one ultimate aim of opening a classroom.

5.3 Decentralized Thematic Approach

Within this step pupils, having developed sufficient independence and personal skills, are able to initiate their own broad themes or projects. Pupils with similar interests may work together planning out strategies and activities. The teacher acts as a resource person and advisor for these individualized themes. S/He is still responsible, however, for the child's education and will sometimes redirect children in their personal pursuits.

SUMMARY AND CONCLUSION

This paper has presented an illustration of a step-by-step procedure for opening a classroom. Each of thirteen steps concentrates on achieving a small change in the roles and transactions of pupil, teacher, and materials. These steps are arranged in five phases, each of which focuses on accumulating the gross changes of two-way communication, establishing a visual concrete referent for verbal interaction, manipulation of materials, building group skills, and implementing pupil initiated intentions.

Obviously this transitional curriculum is only an illustration of planned classroom change. Ideally each teacher will plan a variant of this approach using substantive content and learning activities suited to the abilities, needs and interests of pupils. Pupils most probably will require several repetitions of the transactions of each step with different content until they have acquired the necessary skills to move onto the next step. Some groups of children may be ready before others, therefore, provided the teacher's skills have developed sufficiently enough, a broken front approach to classroom change may be possible, where some groups proceed at a faster pace than others.

This illustration has used the content from a single subject (science) since most elementary teachers will be starting the change process from that perspective. There is increasing opportunity for the integration of this content with other fields, especially when the thematic approach is achieved. Also implicit within the transitional curriculum is a gradual change in the physical arrangement of the room to best facilitate each type of transaction, ranging from traditional rows of desks in the first steps to flexible learning stations for the latter stages.

If a teacher develops a classroom-based transitional curriculum which focuses on a gradual change of roles and transactions, it will provide the necessary support and structure for successfully engaging the task of opening the classroom.

REFERENCES

1. Barth, R.S., Open education and the American school, N.Y.: Agathon Press, 1972.
2. Elementary Science Study, Teachers' guide for: Attribute, games and problems, Toronto: McGraw Hill, 1968.
3. Elementary Science Study, Teachers' guide for: Batteries and Bulbs, Toronto: McGraw-Hill, 1968.
4. Elementary Science Study, Teachers' guide for: Mystery powders, Toronto: McGraw-Hill, 1968.
5. Elementary Science Study, Teachers' guide for: Sink and Float, Toronto: McGraw-Hill, 1968.
6. Hassett, J.D. and A. Weisberg, Open Education: Alternatives within our tradiiton, New Jersey: Prentice-Hall, 1972.
7. Suchman, J.R., Inquiry development program, Chicago: S.R.A., 1966.

Student Teachers' Perceptions of Openness in Special Classes

Marlys M. Mitchell and John C. Brantley
University of North Carolina at Chapel Hill

Running head: Openness

Abstract

The Walberg-Thomas Teacher Questionnaire was completed by 42 student teachers in Phase I to determine the tendency toward open or traditional education in special education classes. No significant differences were found between student teachers in classes for educable mentally retarded and trainable mentally retarded, elementary or secondary classes, self-contained or resource room classes, varying socio-economic levels of classes, or special and regular classes, although special classes tended to be more traditional. The possible effect of resource room programs on open or traditional tendencies is discussed as a result of Phase II of the study.

Open education is an educational term of considerable interest to educators. The movement, which began in Great Britain, has been implemented in the United States, especially in the primary grades. Its definition and description are difficult to characterize precisely. It can be viewed as an administrative plan or as a teacher's point of view. According to Walberg and Thomas (1971, 1974) it is not so much a theory or system, as a related set of ideas and methods, growing out of practical experience rather than philosophical or scientific foundations. Others (Mitchell, Wheeler & Hoover, 1973; Traub & Weiss, 1974) refer to programmatic and architectural openness. For the purpose of the current study, the eight themes of Walberg & Thomas (1972) define the working dimensions of open education: provisioning for learning, humaneness, diagnosis of learning events, instruction, evaluation of diagnostic information, seeking opportunities for (teacher) professional growth, self-perception of teacher, and assumptions about children and learning process.

Several attempts have been made to analyze components of open education (Barth, 1970; Bussis & Chittendon, 1970; Rathbone, 1970; Walberg & Thomas, 1971). Walberg and Thomas (1971) identified eight themes and 106 specific statements which defined open classroom characteristics. This list of statements was revised by Walberg and Thomas to eliminate items which were redundant or lacking in specificity or observability, and 50 items were selected for inclusion in a Teacher Questionnaire (TQ) and an Observation Rating Scale (ORS). The two measures are different since they reword the items from the personal to the impersonal form. For example, an ORS item reads, "Children expect the teacher to correct all their work," while a TQ item reads, "Children expect me to correct all their work."

Open education is proposed as an effective way, whether by plan or philosophy or both, to educate children, since it permits maximum flexibility and planning between teacher and child in determining goals, materials, and activities. Yet the research on open education has produced mixed results regarding effectiveness because of differences in comceptualizations, definitions, and methodology (Traub & Weiss, 1974). Relationships of openness to other variables have been investigated by Evans (1971) who presented research findings from British and American open classrooms and traditional American classrooms in which teachers rated themselves on the TQ. She reported significantly higher scores on the Walberg-Thomas TQ by teachers in open classes than in traditional classes. Results regarding the influence of socio-economic settings are presented by Walberg & Thomas (1972) who report that classes in higher SES schools tend to be more open than counterpart classes in lower SES schools. Similarly, Traub and Weiss (1974), report higher achievement scores in less open programs in inner city schools.

One study (Forman, 1975) used the ORS with normal second grade children in open and traditional settings and reported higher scores on measures of divergent production for open than for traditional classes. Another study (Tuckman, Cochran, & Travers, 1974) reports that open classroom treatment, while not affecting achievement to any measurable degree, enhanced student's self image and liking for school. Wright (1975) reported that after two and one half years in an open or traditional educational environment, children in traditional environments had significantly higher scores on several achievement variables, but no significant differences were found with respect to several measures of personality and of cognition.

None of the studies cited controlled teaching experience with open and traditional classes. Some teachers may be presumed to have experience with one or the other approach, and some with both. The current study proposed to control for the possible influence of teaching experience by employing student teachers who had no prior teaching experience.

The purpose of the current research was to determine the properties of open education demonstrated by and/or observed in student teachers of retarded children as measured by the 50-item Teacher Questionnaire (TQ) developed by Walberg-Thomas (1971).

The Following questions were formulated:

1. Will there be a significant difference between ratings of openness in a sample of special classrooms and normal open classrooms as reported by Walberg and Thomas?

2. Will there be a significant difference between the relative openness of classrooms as a function of socio-economic level of the school population?
3. Will there be a significant difference between special class ratings of openness in self-contained classrooms and resource rooms (structure)?
4. Will there be significant differences in openness between classes for educable mentally retarded and trainable mentally retarded (type)?
5. Will there be a significant difference in openness between elementary and secondary level classes for educable mentally retarded children (level)?
6. Will individual item means from ratings of EMR teachers approximate closed-traditional class scores or open class scores?
7. Will the implementation of resource room programs affect the ratings of special teachers on the TQ?

The Instrument

The TQ is an open classroom characteristics scale developed on eight themes. These themes are Provisioning for Learning; Humaneness, Respect, Openness and Warmth; Diagnosis of Learning Events; Instruction, Guidance, and Extension of Learning; Evaluation of Diagnostic Information; Seeking Opportunities for Professional Growth; Self-Perception of Teacher; and Assumptions about Children and Learning Process. These themes are reported by the authors of the TQ scale to measure distinctive, distinguishing features of open education. In addition, they are distinguishable from one another, and also distinguish open from traditional education.

Scoring is accomplished by totaling the numerical values of the responses which were selected by the student teacher. Separate scores can also be obtained on individual theme items. A total of 200 points is possible.

Training and Rating Procedure

In Phase I of the study, a total of 42 University seniors majoring in special education, in their last semester of academic work, completed the TQ scale. The students were presented with a series of lectures describing differences between open and traditional classes, following the rationale underlying the development of the TQ. The film "Julia" (Holt, Reinehart & Winston) was included in training because it depicted a series of classroom episodes involving an exceptional child, and a number of classroom characteristics appearing on the TQ. The investigators achieved 98% interrater agreement on independent rating of the episodes and characteristics in the film as rated on the TQ, substantiating the appropriateness of the film for its intended purpose. The film was

shown during a class period three days prior to the beginning of student teaching, and students judged and rated the classroom and the episodes in the film according to each of the criteria on the TQ for the purpose of training the student teachers in the use of the TQ. Any criteria which were not clearly in evidence were omitted in rating. The four rating categories were: strongly agree (4), agree (3), disagree (2) and strongly disagree (1).

One month prior to student teaching, each student spent three days as an observer and helper in his assigned classroom. Ratings on the TQ were made by each student at the student teaching site on the third day of student teaching. The form was completed outside the classroom environment. Student teaching sites ranged from preschool (CA 5) to high school (CA 18), and included educable (IQ 50-75) and trainable (IQ 30-50) mentally retarded children as measured by standardized intelligence tests. The organizational structure of the classrooms varied from self contained classes to resource rooms.

In Phase II, two years later, an additional 20 students completed the training program and rated items on the TQ at their student teaching sites. In the Phase II sample, all classes were functioning as resource rooms for special children but in widely varying degrees. The effect of such arrangements on teachers and on structure, as reflected on the TQ, was the purpose of this evaluation.

A total of 62 student teachers participated in the entire study. Ratings were made at 25 schools in urban and rural settings within a southeastern state.

Analysis of Data

Inter-rater reliability of ratings on "Julia" was evaluated by percent agreement on items which were observed on the film and rated by the students, and by student agreement with ratings of the investigators who were experienced in observational and rating techniques.

Five themes of the TQ were used in initial analyses. These were Provisioning, Humaneness, Diagnosis, Instruction, and Evaluation. Three themes, Assumptions, Self-Perception, and Seeking were not included because of the small number of scale items which assessed these themes.

Comparisons on total score and on the five themes were made by type of class (educable or trainable), structure of class (self contained or resource), and level of class (elementary or secondary) using the Kolmogorov-Smirnov "Z" statistic. Ratings of special teachers and regular teachers

based on original data from studies by Evans (1971) and Walberg and Thomas (1971) were compared using t-tests.

The effect of socioeconomic level (based on SES level data obtained from the North Carolina Department of Public Instruction), on themes was tested by the Kolmogorov-Smirnov "Z" statistic. Schools in which low income families comprised $<10\%$ and $>30\%$ of the population were the two extremes included for analyses. Comparisons of means were made between ratings of student teachers in the two groups and t-tests were carried out.

Results

No significant differences were found between ratings of special classrooms and normal open classrooms when comparing current data with previously reported Walberg-Thomas TQ data (Evans, 1971). Means for the special classes are presented for comparison with Forman's data (1975) and that of Evans (1971) in Table 1.

Table 1

Mean Scores on Walberg-Thomas TQ

Source	Group	Mean	S.D.
Evans	U.S. Trad.	142.52	13.73
	U.S. Open	175.10	12.24
	Brit. Open	170.55	11.99
Forman	U.S. Trad	142.80	12.22
	U.S. Open	160.67	9.45
Mitchell Brantley Special Classes	Phase I	128.78	17.88
	Phase II	124.73	14.32
	Combined Phase I & II	126.96	16.34

No significant difference was found between the openness of classrooms as a function of socio-economic level of the schools in the current study.

No significant differences were found between special class ratings of openness in self contained classrooms and resource rooms on any of the five scales or on the total score.

There were no significant difference in openness between TMR and EMR calsses.

There was no significant difference in openness between self contained and resource rooms for EMR children.

No significant differences in openness were found between elementary and secondary level classes for EMR children on the total sample combined Phase I and II scores. When Phase I scores were considered alone, the Kolmogorov-Smirnov comparison yielded a Z of 1.33 (N=6,26) which was significant at the .05 level for Evaluation, and a Z of 1.37 (N=7,24) which was significant at the .05 level for Provisioning.

Item means of the EMR and TMR classes were compared with the Walberg-Thomas traditional and open means. EMR and TMR means were more traditional in 80% of the responses, and were more open for 20% of the responses. Separate analyses for EMR and TMR classes revealed similar results. The themes tending toward openness included all of the five in our study, with the most frequent and proportionally highest theme being Evaluation.

Data gathered during Phase II, which might show the effect of resource room programs, showed no significant differences on any of the variables tested and no signicant differences from the data of Phase I.

Conclusions and Discussion

The results of this research indicated that student teachers of special children, whether in a self contained class or a resource room, are not significantly different from regular class teachers in their expressed attitude, philosophy or implementation of their classes, as measured by ratings on the Walberg-Thomas TQ. Such results support the similarity of open and traditional classes. It may be that the TQ is not measuring what it purports to measure, or it makes arbitrary designations. For example, the item, "Materials are readily accessible to children", is designated as an open classroom characteristic. However, such a statement appears to describe many traditional classrooms equally well. Similar analysis may be made for the item, among others, "Children work directly with manipulative materials." It could be argued that student teachers in special classes, by virtue of their training, and the broad range of skill deficits of their students, should be more open than regular teachers. They should, it is thought, be more flexible, have more books and materials available, provide for more mixed grouping, and more individualization. This study shows, however, that they are somewhat more traditionally oriented than open. Such results may reflect a tightly preplanned, ordered school day necessitated by the range of abilities represented by their students. Teachers, thus, perceive the need to be highly structured in order to accomplish the goals and tasks of the day, giving the appearance of being traditional. Even when open classrooms are well planned, however, they may give the appearance of little structure. The present research might dispel notions that special teachers are very different from regular teachers in philosophy or implementation of classroom instruction as measured by the TQ.

No differences were found in ratings of openness between lower and upper socio-economic level classes, contrary to data reported by Walberg and Thomas (1972). Current data were gathered and classified according to data from Title I, low income family, eligibility roles of the schools. Within each school, however, the classes for special children are frequently composed of children from the lower socio-economic level even though the school is not a lower socio-economic level school, thus clouding the results. This pattern is becoming less true over time, but at the time of this study, it was pertinent and may account for results different from those previously reported.

The lack of significan. differences across years may be due to lag time in changing attitudes and methods, or in fact, to no expected change on the part of special teachers as a result of resource room programs. Alternatively, children in special class settings who tend to be lower in self initiation, self governing and self monitoring skills, may require more direction and structure from the teacher, regardless of educational environment.

The lack of significant differences between classes by structure, type, and level, and between special and regular class teachers is interesting and useful in light of the current emphasis on resource programs for students, and interactions among teachers.

Can we assume the Walberg-Thomas TQ is a valid measure of what actually takes place in the classrooms? Is it more appropriate for elementary classes than for secondary classes? It was the authors' feeling that the TQ ought to discriminate among teachers and classes, yet the results did not show this. Perhaps the raters were not discriminating enough or completed the TQ too early in their student teaching experience to capture the subtle innuendoes of the classroom environment. If this is the case, they would have a predilection to seeing what they were accustomed to seeing. It is difficult to draw conclusions regarding the first question.

Regarding the second question, it was felt that the items were more appropriate for elementary classes. Secondary level teachers who used the instrument stated more often that items did not fit their situations. For example, "The work children do is divided into subject matter areas", describes most secondary level classrooms, regardless of open or traditional philosophies. Yet that item is considered a traditional item. On the basis of current research, it was concluded that the TQ is equally applicable or inapplicable for both levels since no basis for differentiation was found. The questions were most appropriate for elementary teachers; somewhat less appropriate for secondary teachers. The personal philosophy of each teacher may also be of considerable import.

Summary

Forty two student teachers in special classes in Phase I rated the classrooms in which they were teaching on the Walberg-Thomas TQ to determine similarities and differences between regular and special classes on open or traditional characteristics. Results, analyzed by type, structure, and level of special class, showed no significant differences in perceptions among special classes, nor between special classes and regular classes. Open or traditional philosophies appear to be a function of personal philosophies of teachers rather than of special or regular classes, or of type, structure or level of special classes. In Phase II of the study, increased use of resource room organizational structure did not cause significant differences in ratings on the TQ when compared with the Phase I results.

References

Barth, R.S. Open education: assumptions about learning and knowledge. Unpublished doctoral dissertation, Harvard University, 1970.

Bussis, A.M., & Chittenden, E.A. Analysis of an approach to open education. Princeton, N.J.: Educational Testing Service, 1970.

Evans, J.T. Characteristics of open education: results from a classroom observation rating scale and a teacher questionnaire. Newton, Massachusetts: EDC Distribution Center, 39 Chapel Street, 1971 62-27. ERIC, 1971 ED 058 160.

Forman, S.G. Divergent production and achievement in open and traditional self-contained classrooms. Unpublished doctoral dissertation, University of North Carolina, Chapel Hill, N.C., 1975.

Julia. Critical moments in teaching films. New York: Holt, Rinehart & Winston, 1967. Standard Book Number: 03-072025-7.

Mitchell, M.N., Wheeler, K., & Hoover, R. The pod in a summer program for exceptional children. Education and Training of the Mentally Retarded, 1973, 8, 203-206.

Rathbone, C.H. Open education and the teacher. Unpublished doctoral dissertation, Harvard University, 1970.

Traub, R.E. & Weiss, J. Studying openness in education: An Ontario example. Journal of Research and Development in Education, 1974, 8, 47-59.

Tuckman, B.W., Cochran, D.W., & Travers, E.J. Evaluating open classrooms. Journal of Research and Development, 1974, 8, 14-19.

Walberg, H.J. & Thomas, S.C. Characteristics of open education: Toward an operational definition. Newton, Massachusetts: Training-Development Research Associates, Inc., 375 Eliot St., 1971.

Walberg, H.J., & Thomas, S.C. Open education: An operational definition and validation in Great Britain and the United States. American Educational Research Journal, 1972, 9, 197-208.

Wright, R.J. The affective and cognitive consequences of an open education elementary school. American Educational Research Journal, 1975, 12, 449-468.

IMPLICATIONS OF PIAGETIAN RESEARCH FOR TEACHERS OF TEACHERS AND TEACHERS OF CHILDREN

Thomas J. O'Brien (reprinted by permission)

1. "The fact is that we have no histories, no journals, no letters, not even papers. The only documents we have are marked clay tablets, account books, mere administrative files from a short period just before the destruction of a few Mycenaean palaces. Most of the record is simple arithmetic; 60 percent of the words that do occur are place-names, headings, titles of officials and a few ideograms that label goods, weights and measures and the like. Nearly all the documents are brief; single file cards, so to speak. Here a typical one is pictured and interpreted: Aniatos (s shepherd) keeps his flocks in the district of Phaistos, allocated to an official named Werwesios. The sheep are listed as male, female and "old," with the remainder needed to reach a nominal total and one correction. Only the three proper names, four numbers, three related idograms and two words in abbreviation are found in the document ...."

-- Philip Morrison, Review of The Mycenaean World in "Books," Scientific American, February 1977, p. 130.

So goes the description of the Linear B script found in Knossos as given in Morrison's review of The Mycenaean World. One is struck by the paucity of life left us by the Bronze Age Greeks. The tablets give us some information about their ancient life. The information is limited. The relationships nil. And the overall picture is a static one. How barren a legacy.

As I read Morrison's review I thought about American education. What of the legacy, through schools, to our children? I suggest that it is in some respects equally limited, barren and static.

2. The prevailing view of learning in American education -- indeed, the prevailing view in general in schooling -- is a static model. Here's how learning is seen to take place.[1]

The model springs, I suspect, from two sources, 1) an eclectic mixture of behavioristic psychology in which the locus of ntrol of human behavior is seen as external to the learner (Think here of gold stars and grades and praise and M&M's, not to say anything of behavioral objectives.) and 2) a business basis for educational policies and practices derived by school administrators and educationists from mass production studies, cost effectiveness studies and efficiency expert (i.e. time/motion) research done in US factories in the early 1900's. (Think here of the twelve month school, performance-based contracting, management by objectives, state educational funding policies, behavioral objectives and, for university folks, credit hour production.)[2]

3. There is some reason for dissatisfaction with American education's current view of learning and of knowing, not the least of which is that it fails to take into consideration two of the most important aspects of being human -- 1) the human organizes information; he does not merely store and retrieve and 2) the human deals with novelty; in fact, much of our lives is concerned with coping with -- and seeking -- novelty.

4. Fortunately, there is an alternate set of underpinnings for one's policy and practice of education. It derives from the more than fifty years of research by the Swiss epistemologist Jean Piaget and his collaborators on the nature of knowing, not on studies of mass production and cost-efficiency or on research involving presentation rates, nonsense syllables, and amount of information stored under various artificial conditions of reward and punishment.

5. It is risky -- perhaps even foolish -- to describe some of the main findings of the Piagetian researchers and their implications for education. For one, the published work is voluminous and I, after fifteen years of reading and of some small research of my own, can lay claim to knowledge of only a small fraction of the Piagetian knowledge available. Second, the work is still unfolding and the previous research is subject to clarification, revision and emendation, even by -- perhaps it is fair to say especially by -- the Piagetians themselves. Third, the ideas are often terribly complex even when presented as an organized whole. They are easily given to the distortion, oversimplification and misunderstanding accompanying any complex web of important ideas, not to say anything of the turgid prose which Piaget gives us and the ambiguities and inconsistencies and unknowns added by translation from French to English. Fourth, it is fair to say that the Piagetians have had little interest in and little to say about systematic education, save for Piaget's very readable Science of Education, the recent work of Inhelder, Sinclair and Bovet,[3] and a few other pieces. What the Piagetians have done, until very recently, is to look on knowledge

in children as they come; they have not attempted under classroom conditions to influence the act of knowing in children.

6. Fifth -- and this is worth a special section in this report -- there is both difficulty and risk in making available one's construction of a Piagetian view of knowing and its implications for education. Aside from the fact that I may be wildly wrong in my understanding of Piagetian research and its implications for education, there is the problem of the hearer's/reader's construction of the issue. The problem is a problem of staticity. What many Americans know of Piaget is the following:

6.1 "There are certain ages at which certain intellectual things should be happening. Piaget has a handbook for checking this sort of thing." Nothing could be further from the truth.

6.2 "Piaget has laid out stages of intellectual development and, knowing those, we can assess and assign students so that they can receive the right type of curriculum and instruction." This is a seductive halftruth; it misses the heart of the issue.

7. Disclaimers given, let me tell what I propose to do. I cannot possibly, in this short time, describe Piagetian theory. What I propose is to mention a number of issues which spring from the research and which seem to me to be at the heart of the relationship between Piagetian thinking and the theory and practice of education. To be sure, the theory is still evolving and its relationship with education remains largely undeveloped.

8. The central issue in Piagetian research is the relationship between the knower and the known. Put another way, what does it mean when we say Person P knows Issue I? What does it mean <u>to know</u>?

First of all, the Piagetian view sees the human being as an <u>active</u> knower <u>vis a vis</u> external reality. The human does not passively copy and store the things of external reality. He attends selectively, he interprets what comes in to him, he weaves that new thing in with previously established thought structures, much as you are doing right now. The new issue is deformed in terms of existing networks of thought and the existing networks need to shuffle themselves about to incorporates the new issue. On this point, the Piagetian viewpoint is starkly different from that of much of present day school practice, much less that of American educational research, in which the knower is seen largely as a passive storer of external reality.

9. The person organizes what comes in to him and he reorganizes his internal world in terms of itself and in

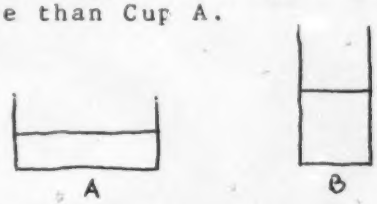
terms of new issues which come in to him. This organizing activity tends toward coherence, stability, economy and generalizability. Moreover, at the same time the organization tends to equilibrium it is developing the seeds, as it were, for new disequilibrium -- it seeks greater complexity and a higher order of equilibrium. (Think here of teenage boys learning to toboggan for the first time. They muster the abilities necessary for equilibrium in their first few trips and by the time the day is over they may be tobogganing downhill blindfolded and backwards and/or standing on one another's shoulders.)

That human beings organize is a fact widely ignored in present-day American education. What much of schooling is given to is the transmission of ready-made organization from teacher to student (and, by the way, from person to "lower" person at virtually all levels of education.) That this is so is unfortunate, because it matches badly with what we have learned about humans and their knowing over the past fifty years. That this is so, moreover, is grossly inefficient in that present practices fail to capitalize upon the student's native ways and patterns fo knowing.

10. The human being constructs his world. He does not accept it fullfledged as it comes in to him, nor does he normally autistically create his world out of contact with external reality. (Think of a child's growing construction of St. Louis' Memorial Arch as he coordinates points-of-view and evolves his original idea that there are different Arches for various views from Memorial Bridge.)

11. There are several characteristics of this evolution of constructions that bear mention briefly here. One is that the growth of knowing is not a linear and accretional affair, such that new knowledge comes in in discrete packages to be added to the old. Rather. knowing involves systems -- I prefer to call them ideational networks -- under coordination and evolution. (Think here of boy-girl handholding and its change through interaction over time.)

12. While you are thinking of boy-girl affairs, there are three other issues to keep in mind. The intellectual growth described by Piaget and his collaborators is concerned, in part, with the imbalance between percept and concept. At one early stage of development, a child will clearly indicate that Cup B holds more than Cup A.



It looks like more, and before the child constructs an ability to coordinate dimensions (strictly speaking, to compensate greater height by lesser base area) he says that B has more. The ability to coordinate dimensions is a major component of thinking and the ability to conquer percept through concept is a lifelong construction.

Related is the issue of action. It is commonplace today for educators to champion "hands-on" activities for children. Why they do so is not clear. Perhaps they believe that children will "learn better" and have more fun or perhaps they believe that young children are capable of no more than brute perceptual interactions with external reality. A better reason, perhaps, is the Piagetian view that knowing <u>is</u> action. That is, knowing is interiorized action which evolves from overt action. For example, when a young child counts beads he moves the beads. Why? He needs to keep track of the beads already counted and those that remain to be counted. You and I can often do the moving in our head: we scan by eye and we classify. Our classifying is an interiorized action.

A third issue here is the distinction between static and dynamic knowledge. Airtight definitions are difficult, but by static knowledge I mean information stored passively in memory; e.g. George Washington was born in 1732. By dynamic knowledge I mean the construction of relationships, the coordination of information, the organizing of internal reality. I mean thinking, imagining, creating, generating plans and strategies, reasoning, inferring, solving problems, classifying, ordering, relating, concluding and symbolizing.[5] It is dynamic issues with which Piagetian research has been concerned. There is some doubt that even memory is static[6] and it is these issues to which American education might productively attend.[7]

13. Two important issues concerning the relation between the knower and the known may bear the attention of those interested in education at the elementary school level. A major issue for the newborn is "What's me and what's not me?" The newborn gradually disassociates himself from external reality -- it's a big day when parents can say, "Johnny discovered his hands today." -- but with that the issue is not nearly resolved. At a higher level the child must then wrestle out a parallel question. "What are my <u>ideas</u> and what are not my ideas?" The issue is egocentrism -- the child's view that his ideas, percepts, concepts and conclusions are the only ones possible and thus are shared by all around him. For anyone who has been in contact with young children -- never mind about Piagetian research here -- there can be no doubt about the pervasiveness of egocentrism in childhood thought. (But this is not to say that egocentrism is limited to childhood.)

Similarly, a major accomplishment in infancy -- the child's gradual construction of the permanence of objects -- has its parallel later on. The infant moves from the view that objects come and go at random -- the child at 4-8 months will track an object with his eyes but when it disappears behind a screen or under a couch, for example, he will act as though the object has ceased to exist -- to the realization that an object exists independently of his perceptual or motor contact with it. He is able to represent (re-present) absent objects via mental action. Parallel to this is the preservation -- in elementary school years -- not of objects but of properties of objects; here lie the various conservations of numerousness, of length, of volume, of weight and so forth. The child -- throughout his elementary school years -- is coordinating properties and constructing relationships among properties of objects and events. It is this dynamic activity which characterizes much of intellectual life from ages 5 to 12, the time when American children are in elementary school.

15. What, then, about American education? For one, we might attend to mind instead of memory. Second, we might view the human being as an active knower and knowledge as an active construction. Third, and by far most important, education might well base its policies and its practices on what we know about humans and their growth rather than on principles of management and mass production or on research involving laboratory rats or nonsense syllables.

16. What have I tried to do? I have tried to highlight in a brief time some of the important issues where Piagetian research might bear on education. And I have tried to suggest that there exist issues which American educational policies and practices largely ignore. By no means has this discussion been exhaustive but by all means I hope that it has provided some dissonance. Let me close with a view of the Piagetian knower.

17. In his excellent survey of Piaget-related research, Flavell asks the question "What ought a human cognitive system be reasonably endowed with if it is to have a good chance of bearing the enormous number and variety of things that members of our species do, in fact, routinely do?"[8]

"It would seem sensible, first of all, to design it so that it did a lot of spontaneous, noninstrumental, intrinsically rather than extrinsically motivated cognitive functioning. The system should be disposed to notice and do and remember things even when no noncognitive needs (e.g. for food) are served thereby; it should exercise its schemes for the heck of it as well as for practical ends, for fun as well as for profit. There is so very much to learn that the

system should not be permitted to lie around idle except when some tangible gain is in view.

The cognitive system should also be biased to attend to those situations or features of situations that present it with the most information, and especially, information that is new and therefore worth learning.... Novel, surprising, puzzling, discrepant, uncertainty- and curiosity-provoking, or put most generally, not-readily-assimilable happenings -- these are precisely the ones a learning, developing organism ought to be designed to notice, explore, and seek to understand, for they constitute the essential nutriments for its cognitive progress.

Needless to say, the cognitive system should be amply rewarded for its successful efforts at understanding such happenings, i.e., for the bit of learning and cognitive kind of pleasure and sense of satisfaction whenever understanding dawns. We shall also want to make the system take pleasure in rehearsing its newly developed competence again and again, by itself and on its own. Such rehearsal for mastery's sake will tend to solidify and stabilize this competence through the overlearning it provides.

In sum, we have designed an organism that idly learns when there is no practical need to do so, that tries to learn what it most needs to learn, and that finds it rewarding both to learn these things initially and also to solidify and perfect its learning through subsequent practice. The human child appears to be just such an organism."

18. Let us not leave a Linear B script to our children.

NOTES

1. See Richard E. Mayer, "Information Processing Variables in Learning to Solve Problems," Review of Educational Research, (Fall 1975), Vol 45, No. 4, pp 525-541. Mayer describes the one-stage model as proposing that 1) the outcome of learning can be evaluated in a quantitative way in order to determine how much of the material presented is remembered, 2) that the main internal processing variable is the learner's attention and 3) that the external instructional variables influencing "how much" material reaches memory are the traditional verbal learning experiment variables: length and rate of presentation, number of repetitions, admonition to pay attention, etc. He goes on to propose a two-stage and a three-stage model. In the latter learning is susceptible to both quantitative and qualitative evaluation and learning is seen to be a function not only of how much information is received but also of its interaction with and activation of existing knowledge.

2. See Raymond E. Callahan, "Education and the Cult of Efficiency," The University of Chicago Press, Chicago and London, 1962. This is an issue addressed in a related paper. See Thomas C. O'Brien, "Pig Iron, Education and Teachers' Centers," Untitled, San Francisco, Far West Laboratory, (eds. Kathy Devaney and Lorraine Thorn), 1977.

3. Barbel Inhelder, et al., Learning and the Development of Cognition, Cambridge, Harvard University Press, 1974. One should, however, note the pioneering work of Americans such as Sigel, Hunt, Belanger, Kamii, Smock and others, and in Great Britain, much earlier, of Susan and Nathan Isaacs, Molly Brearley, Sir Alec Clegg, and more recently Edith Biggs and Joan Tamburrini and others.

4. J. McV Hunt, "The Impact and Limitations of the Giant of Developmental Psychology," in D. Elkind and J.H. Flavell, (eds.) Studies in Cognitive Development: Essays in Honor of Jean Piaget, New York, Oxford University Press, 1969.

5. The list comes in part from John H. Flavell, Cognitive Development, Englewood Cliffs, Prentice-Hall, Inc., 1977, p 2.

6. See Barbel Inhelder, "Memory and Intelligence in the Child," in Barbel Inhelder and Harold Chipman (eds.), Piaget and His School, New York, Springer Verlag, 1976.

7. This issue has been addressed more fully elsewhere. See Thomas C. O'Brien, "Three Informal Essays," Educational Studies in Mathematics, (Utrecht, Netherlands), Vol 7, 1976.

8. John H. Flavell, Cognitive Development, Englewood Cliffs, Prentice-Hall, Inc., 1977, pp 23-24.

PRIMARY TEACHERS' ATTITUDES TOWARD LEARNING CENTERS*

by
Dr. Randall A. Pelow

During the 1970s, much attention has been directed toward the methodological concept called learning centers. However, a search of the literature has revealed relatively few research findings concerning teachers use of and attitude toward learning centers.

In response to this need, a study was designed and conducted with primary teachers to investigate the following questions:

1. What is the attitude of primary teachers toward learning centers?
2. How often do primary teachers use learning centers?
3. In what subject areas are learning centers used most frequently?
4. For what purpose do primary teachers use learning centers?
5. In what capacity are learning centers utilized in the classroom?

Sample

The sample population consisted of 37 parochial school participants and 30 public school respondents from various geographic locations in Pennsylvania and contiguous states. A cross section of primary classrooms ranging from Kindergarten through grade three was obtained. Although representing a variety of organizational patterns, a heavy majority of teachers (88%) taught in a self-contained classroom. Teaching experience of the participants traversed from one to twenty-one years, with a mean of five years being tabulated.

Data Collecting Instrument and Procedures

In constructing a valid opinionnaire, numerous books and periodicals written by noted authorities on learning centers were consulted. Divided into two sections, Part A of the instrument utilized the Likert Scale to register the extent of agreement or disagreement with each of the 22 statements concerning centers. Eleven of these items were worded positively while the other 11, randomly mixed among the affirmative statements, were expressed with a negative connotation.** This process allowed the researchers to obtain an unbiased measure of primary teachers' attitudes toward learning centers. Some examples of statements were:

---

*This report stems from a research study designed by Dr. Pelow and Sister Anne L. Freed of the Harrisburg Diocese.

**According to the Likert system, all positive items receive from five points on a "strongly agree" response to one point on a "strongly disagree" statement. The converse is true on all negative statements in which five points are assigned to a "strongly disagree" item and one point is awarded to a "strongly agree" response.

Positive

1. A learning center consists of one or more independent instructional activities.
20. Learning centers can accommodate a range of abilities within the classroom.

Negative

15. Learning centers should be used sparingly, perhaps as a treat for the children.
17. Learning centers create more discipline problems.
21. Most primary students lack the maturity to work with learning centers.

Because certain factual information could not be measured by the Likert method, Part B was composed of multiple choice items directly related to the questions investigated. After several revisions, the opinionnaires were distributed along with a letter of explanation.

Treatment of the Data and Results

Upon a 100 percent return of the opinionnaires, the survey responses collectively were tabulated and systematically arranged on tables and figures. Since there were 22 items in Part A, raw scores for each respondent (according to the Likert Scale) could range from a low of 22 to a high of 110 with a point of neutrality registering at 66 points. Ninety-eight percent (98%) of the scores were dispersed from 78 to 105 points with only one participant's score of 38 falling below the neutral zone. A mean attitudinal score of 19.35 was calculated which indicated a highly favorable disposition toward learning centers among the teachers polled. A strong positive correlation was noted when the more experienced teachers had a tendency to accumulate a higher assessment.

Relative to frequency of use, Table 1 shows that 98 percent of the respondents stated they used learning centers. A slight majority of the teachers (51%) employed centers daily while the others utilized them at various times during the week.

Table 2*** identifies the subject areas in which learning centers were most commonly used. Higher percentages were noted for those subject areas traditionally devoted to the primary curriculum. Lower ratios were reflected in science and social studies because these subjects characteristically are not stressed in the primary classroom.

*** Respondents could provide more than one answer for Tables 2, 3 and 4.

TABLE 1

SUMMATION DATA FOR QUESTION "HOW FREQUENTLY DO YOU USE LEARNING CENTERS?"

		Responses	Percentages
a.	once a day	34	51%
b.	three times a week	9	13%
c.	two times a week	3	4%
d.	whenever children get to them	19	28%
e.	not at all	2	2%
f.	other (please specify)	0	0%

TABLE 2

SUMMATION DATA FOR QUESTION "IN WHAT SUBJECT AREAS DO YOU USE LEARNING CENTERS?"

a.	language arts	50	73%
b.	mathematics	55	80%
c.	science	21	30%
d.	social studies	17	25%
e.	reading	58	85%
f.	other (please specify)	10	14%

TABLE 3

SUMMATION DATA FOR QUESTION "WHAT IS YOUR MAJOR PURPOSE FOR USING LEARNING CENTERS?"

a.	develop concepts and skills	13	19%
b.	reinforce concepts and skills	64	94%
c.	motivate youngsters	26	38%
d.	other (i.e., enrichment)	9	13%

Table 3 depicts an overwhelming majority of primary teachers (94%) employed centers to reinforce concepts and skills while using centers in a developmental capacity garnered just under a 20 percent response.

Table 4 reveals how learning centers were included in the teachers' curriculums. Fifty-four percent (54%) of the participants incorporated them as an integral part of their instruction while approximately 33 percent viewed centers as free time activity and/or to be used only after the children complete their regular work.

TABLE 4

SUMMATION DATA FOR QUESTION "HOW ARE LEARNING CENTERS UTILIZED IN YOUR CLASSROOM?"

a.	as an integral part of your teaching	37	54%
b.	used only after regular work is completed	22	32%
c.	as free time activity	23	33%
d.	other (please specify)	8	11%

Conclusion

The results of this investigation disclosed nearly all of the primary teachers (98%) felt that learning centers were a valuable teaching device as well as an enjoyable and profitable educational experience for their children. Their assessments would indicate that, within the confines of this study, learning centers have been accepted as an integral component of the primary school curriculum. Concluding remarks can best be summarized in the words of one respondent:

> To see little children happily working independently or together with a sense of who they are, what they can do, and where they want to go, makes all the teacher time and preparation worth it.

Reference List

1. Freed, Sister Anne. A study of the attitude of primary teachers toward learning centers. Unpublished Master's thesis, Shippensburg State College, August, 1976.
2. Pelow, Randall and Alice S. Pelow. Learning centers: New kid on the block. Elementary Education in the Church, Fall, 1976, 27-36.
3. Stafford, Gerald and Randall Pelow. Getting started with learning centers. Minneapolis, Minnesota: Burgess Publishing Company, 1974.